M/023/042
PLS FILE

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
FILLMORE FIELD OFFICE
35 East 500 North
Fillmore, Utah 84631

TAKE PRIDE IN AMERICA

In Reply Refer to:
3809
(UT-010)

October 1, 2004

TOM MUNSON
UTAH DIVISION OF OIL GAS & MINING
1594 WEST NORTH TEMPLE, SUITE 1210
PO BOX 145801
SALT LAKE CITY, UTAH 84114-5801

Dear Tom:

Enclosed are copies of the June 18, 1998 letter to BEG Resources and the enclosures that were included with the original letter.
Call if you have further questions on the situation. In the mean time I will inform Sherry Hirst and Terry Snyder of the situation.

Sincerely,

Jerry W. Mansfield
Geologist

Enclosure(s):
Letter and enclosures to BEG Resources dated June 18, 1998.

TITLE 5 "RIGHT OF WAY"

10/25/04

RECEIVED
OCT 07 2004
DIV. OF OIL, GAS & MINING

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
HOUSE RANGE/WARM SPRINGS RESOURCE AREA
35 East 500 North
Fillmore, UT 84631

IN REPLY REFER TO:
3800
(U-054)
UTU-072860

CERTIFIED MAIL # P 556 237 769
RETURN RECEIPT REQUESTED

June 18, 1998

NEAL JENSEN
MANAGING PARTNER
B.E.G. RESOURCES L.L.C.
PO BOX 361
NEPHI UT 84648

Dear Mr. Jensen:

We are in receipt of your letter of June 12, 1998. We can find no records in our case file where any BLM employee indicated to you that you would not have to reclaim roads that you had improved during the course of your activities at the Travertine #1 mine. Enclosed with this letter is a staff report written by Ron Teseneer that relates his recollection of the conversation between the two of you on the subject.

The culvert we asked you to remove in our May 29, 1998 letter is one to which you refer in your June 20, 1995 Notice (copy enclosed). If the culvert was never installed and our incorrect assumption that it had been confused you into thinking we were asking you to remove culverts on Highway 132, we apologize. The segment of the road which we are requiring you to reclaim is indicated on the attached map.

If you wish to set up a meeting between you, the Utah Division of Oil Gas and Mining (UDOGM) and us, we will be happy to participate.

Rather than delay approval of your mine plan any further, which would force us to issue you a cease and desist order for your operation, I am signing today the enclosed Environmental Assessment and stipulations that have been prepared for your Plan as if you had submitted the amendment we requested in our letter of May 29. If no one protests the action, your mine plan will be approved on July 18, 1998, and will be subject to the stipulations.

If you disagree with any part of the Environmental Assessment and/or stipulations, you have 30 days from the receipt of this letter to appeal this decision. The appeal should be filed in writing and directed to:

Utah State Director
Bureau of Land Management

P.O. Box 45155
Salt Lake City 84145-0155.

If you exercise this right, your appeal must be accompanied by:

1. The name and address of the appellant,
2. The name and serial numbers of any involved mining claims, and
3. A statement of reasons for the appeal and any arguments you wish to present, which would justify reversal of modification to this decision.

On March 20, 1998, a Notice of Noncompliance (NON) was sent to you for failure to submit a Plan of Operations (Plan) and a bond. The same day, you faxed to this office an incomplete Plan. The NON had stated that you had fifteen days from receipt to submit the Plan. You received it on March 21, 1998, which made the deadline April 6, 1998, as April 5 was a Sunday. On March 24, 1997, another letter was sent to you informing you that your Plan failed to meet the requirements outlined in the NON, and that a complete Plan and a bond were expected on April 6. The bond was received by the UDOGM on April 20, 1998, and this office received a complete Plan on May 5, 1998. You did not contact this office either by phone or letter, nor did you come by in person to request an extension on the deadline. Therefore, on April 6, 1998, you established a Record of Noncompliance (RON). Due to a recent court case, the consequences for establishing an RON are unclear, and we are waiting for guidance from the Washington Office before proceeding further on that issue.

If you have any further questions, please feel free to contact Ron Teseneer at (435)743-3126, or me at (435)743-3100.

Sincerely,

Rex Rowley

Rex Rowley
Area Manager

Enclosures
Staff Report
Copy of Notice
Environmental Assessment w/stipulations

cc: Terry Steele, 296 N Center, Santaquin Ut 84655
Robert Steele, 1055 N 400 E Nephi, Ut 84646
Wayne Hedberg, UDOGM (S/023/042)

SWysong:nh

WYSONG

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write *"Return Receipt Requested"* on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

Is your RETURN ADDRESS completed on the reverse side?

Thank you for using Return Receipt Service.

3. Article Addressed to:

NEAL JENSEN
MANAGING PARTNER
B.E.B. RESOURCES L.L.C.
PO BOX 361
HEPHI UT 84648

4a. Article Number
P 556 237 769

4b. Service Type
☐ Registered ☒ Certified
☐ Express Mail ☐ Insured
☒ Return Receipt for Merchandise ☐ COD

7. Date of Delivery
6-20-98

5. Received By: *(Print Name)*

8. Addressee's Address *(Only if requested and fee is paid)*

6. Signature: *(Addressee or Agent)*
X Neal Jensen

PS Form **3811**, December 1994 102595-97-B-0179 **Domestic Return Receipt**

P 556 237 769 WYSONG

US Postal Service
Receipt for Certified Mail
No Insurance Coverage Provided.
Do not use for International Mail *(See reverse)*

Sent to NEAL JENSEN
Street & Number B.E.B. RESOURCES L L C
Post Office, State, & ZIP Code PO BOX 361 NEPHI UT 84648

Postage	1.24
Certified Fee	1.35
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	1.10
TOTAL Postage & Fees	$ 3.69
Postmark or Date	

JUN 17 1998
FILLMORE

PS Form **3800**, April 1995

STAFF REPORT

TITLE: Comments on Neal Jensen's Letter, Dated June 12, 1998 (UTU-072860)

DATE: June 18, 1998

AUTHOR: Ron Teseneer

It was noted in the August 27, 1996 inspection of the Neal Jensen's operation, located in Sec. 14, T. 14 S., R. 3 W., that the operation was approaching, if it had not already exceeded the 5-acre threshold for notice level operations.

Accordingly, November 12, 1997, I conducted a hip-chain and compass survey of the perimeter of the disturbed area, excluding access roads. The area of the access roads were determined by obtaining a length from the 1:24,000 topographic map of the area (approximately 1 mile) and assuming an average width of 15 feet. This resulted in a disturbance of approximately 8 acres.

A letter was sent to Mr. Jensen November 19, 1997 (certified mail, return receipt requested) which informed him of the need to file a plan of operations and enclosed copies of the 43 CFR 3809 regulations and a copy of UDOGM's MR-LMO (permit application for large mining operations). Mr. Jensen was allowed 60 days from the receipt of the letter to submit his plan. He received the letter on November 22, 1997, and the 60 days allowed him until January 21, 1998 to submit his plan of operations.

Mr. Jensen subsequently called me at the office and I met him on site on January 9, 1998. During this meeting, Mr. Jensen claimed that Sheri Wysong had previously told him that as the access roads existed at the time his operation started that he could improve them and would not have to reclaim them. He stated that he had widened the access roads and had maintained them. Accordingly, I agreed to lower his current disturbance from 8 acres to 7 acres. I agreed to a 3 week extension to due date for the submission of his plan of operations due to the holidays delaying his contractor. This gave him until February 11, 1998 to submit his plan of operations.

Mr. Jensen came into the office on February 10, 1998 and requested that our February 11 due date be changed to March 9, 1998 to correspond to UDOGM's due date. That request was granted by Rex Rowley, the Area Manager.

March 18, 1998, I again met Mr. Jensen on site, at his request, to discuss the acreage determination. He stated that his contractor had arrived at a figure of 4 disturbed acres for the operation. He and I walked over the operation and I pointed out to him the string from my hip-chain that showed the perimeter of the area I had walked. Mr. Jensen had measured the site prior to my arrival and we calculated a disturbed acreage from his measurement figures of 6.1 acres.

In reviewing my notes prior to the March 18 meeting, I realized that I had used a road width of 15 feet in my calculations, not 10 feet, and when I subtracted one acres from my initial total of 8 acres to arrive at my 7 acre figure, I should have subtracted a total of 1.5 acres for a total of 6.5 acres. This is only 0.4 acres more that Mr. Jensen's total of 6.1. I also included the road to his explosives storage, which he did not, and this is part of the 0.4 acre discrepancy.

As the disturbance as calculated from Mr. Jensen's measurements was over 6 acres he stated that he would fax his plan of operations to me before the day was out.

March 20, 1998, Mr. Jensen was sent a notice of noncompliance for failure to submit his plan of operations.

Review of the case file shows no documentation of anyone granting a release from reclamation liability for the access roads to Mr. Jensen's operation. In subsequent conversations with Sheri Wysong, she stated that she had no recollection of granting a release from reclamation liability for the access roads to Mr. Jensen's operation.

Mr. Jensen admitted to widening and maintaining the access roads to his operation, therefore he is responsible for the full 8 acres of disturbance as originally determined in the November 12, 1997 survey.

Lon Jensen

UT-055-3809

(For BLM use) Serial No.
Date Received

DEPT OF THE INTERIOR
RECEIVED
JUN 20 1995
Bureau of Land Management
House Range/Warm Springs R.A.

NOTICE
OR
PLAN OF OPERATIONS
(For Operations Proposed Under the 43 CFR 3809 Regulations)

Instructions to Claimant/Operator: Circle "Notice" (above) if proposed mining activity within the project area will disturb a total of five (5) acres or less during the calendar year. Circle "Plan of Operations" if disturbance will exceed five (5) acres during the calendar year or if operations are within one of the specially designated areas described in 43 CFR 3809.1-4(b). Complete the form in as much detail as possible. Additional sheets may be used if necessary. Use maps or sketches where appropriate (maps or sketches are required for submitted plans of operations and are recommended for submitted notices). A review of the 43 CFR 3809 regulations should be conducted prior to completion of this form and submission to the appropriate BLM office.

Operator Information:

Name	Address	Telephone
New-Operator Wester State Mentals	113 East 200 North SANTAQUIN UT P.O Box 786 SANTAQUIN	801-754-5940 754-5940

Claimant Information (if different than operator):

Name	Address	Telephone
Rober Steele Terry Steel	Nephi UT 1055N 400E 84648	

Claim Information (Claim names, circle claim types (Lode, Placer, Mill Site, Tunnel), UMC Serial Number. List only the claims where the disturbance is proposed):

Travertine #1

Location of Proposed Activity (i.e. County, Township, Range, Section and Quarter section):

Juab County
SW 1/4 Sec 14 T14S R8W

Describe Pre-Existing Disturbances and Structures or Indicate on Maps or Sketches (Mine and Mill Facilities, Workings, Tailings, Dump Areas, etc... It may be to your advantage to document existing disturbance with photographs):

There is A pre existing open pit on site

Describe Access Routes (Existing and proposed, for proposed road construction specify length and width in feet):

Access Road 700 x 25 will be Constroded To use
We will install Colvert at wash near Existing
Road with Acess To highway SR 132

Proposed Operations: Describe the entire proposed operation, including the type of material being removed and all surface disturbing activities (road construction, drilling, trenching, backhoe and bulldozer exploration, mining, waste disposal, etc.). List all mechanized earth moving equipment to be used during the operation and state if any explosives are to be utilized. Describe and furnish a map or sketch, when applicable, showing existing surface disturbances, structures, facilities, etc., and the location and size of areas where surface disturbance are proposed, including existing and/or proposed routes of access. Calculate the total acreage proposed for disturbance (1 AC. = 43,560 sq. ft.).

Date Operations are Proposed to Commence as Outlined in this Submittal - (Month, Day, Year):

Proposed Completion Date - (Month, Day, Year):

Proposed Reclamation: Describe the proposed reclamation procedures and other measures to be taken to prevent unnecessary or undue degradation of the lands, including measures to be taken if a period of non-operation is anticipated. When reclamation has been completed, the Authorized Officer of the BLM shall be notified so that an inspection of the area can be made.

I hereby declare that I, or persons I have authorized to do so, will complete all necessary reclamation of areas disturbed during the course of my operations to the standards described in 43 CFR 3809.1-3(d) and that reasonable measure will be taken to prevent unnecessary or undue degradation of the federal lands during operations.

Mark Sewell
Signature of Claimant or Operator

7/2/95
Date

Notice to Claimants/Operators:

1. A notice submitted in relation to the 43 CFR 3809 regulations does not require approval from the BLM. However, notification of such activities shall be made at least 15 days before commencing operations. Approval of a submitted plan of operations is required from the BLM prior to commencing operations. The BLM will promptly acknowledge receipt of a plan and will notify the claimant/operator of the status of the plan within 30 days of receipt.

2. Approval of a plan of operations does not constitute certification of ownership to any person named as claimant/operator herein, nor does approval constitute recognition of the validity of any mining claims named herein.

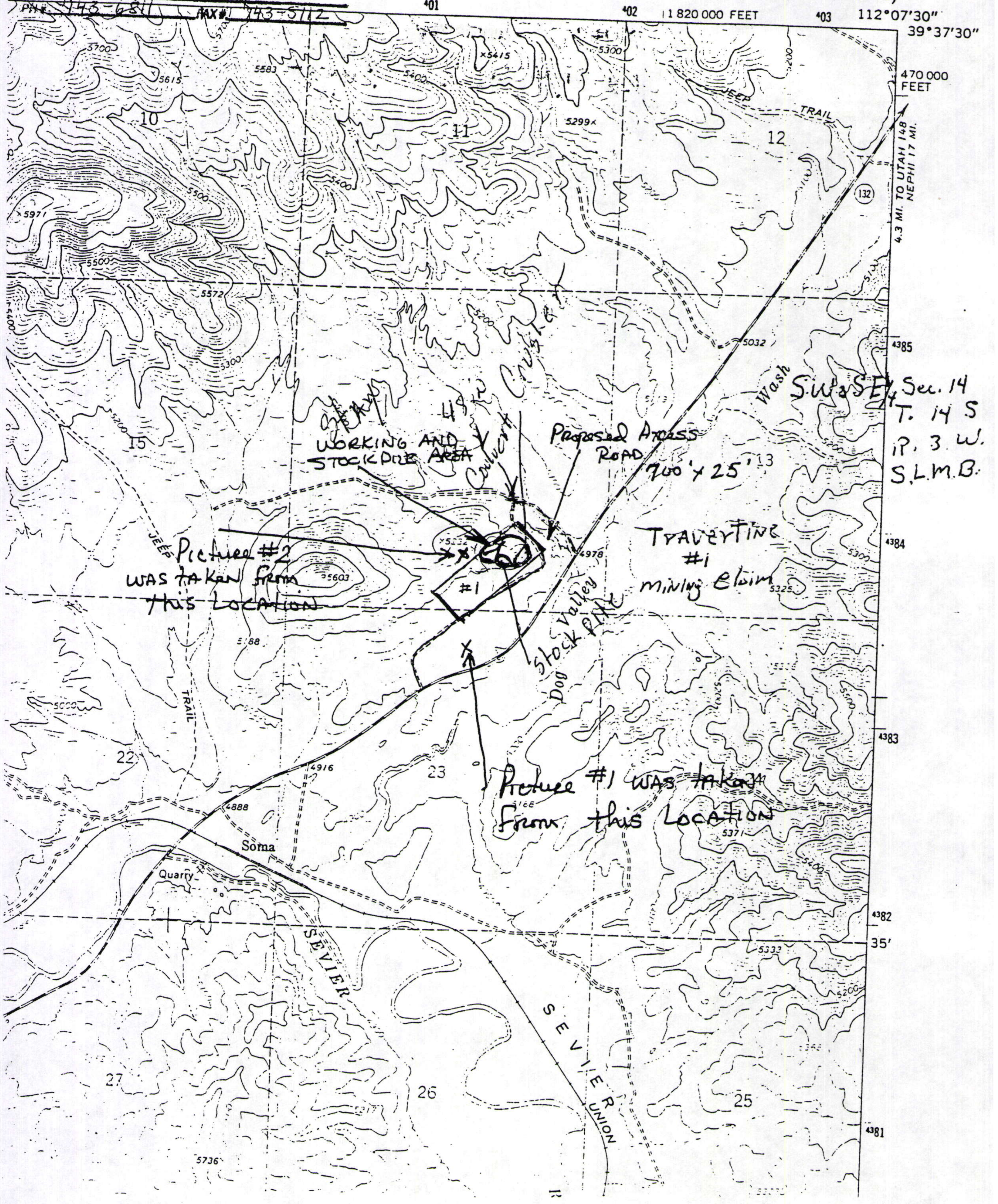
3. Information and data submitted and specifically identified by the operator as containing trade secrets of confidential or privileged commercial or financial information should be attached to a separate page and cited in the text of the notice or plan of operations. This information will be filed separately by the BLM and will not be available for public inspection.

4. Failure of an operator to file a [illegible] under 3809.1 - 3 or a plan of operations under 3[illegible] - 4 will be subject to the operator, at the discretion of the authorized officer, to being served a notice of non-compliance or enjoined from the continuation of such

FAX MEMO

PAGES 6 DATE 6/14/95 FAX # 756-4
TO Neil Jensen
FROM Sheri Wysong
CO BLM
PH # 743-6811 FAX # 743-5712

CHAMP[illegible] PEAK QUADRANGLE
UTAH
7.5 MINUTE SERIES (TOPOGRAPHIC)



EA NUMBER J-050-098-087EA
SERIAL NUMBER UTU-072860-01

BUREAU OF LAND MANAGEMENT
HOUSE RANGE RESOURCE AREA
35 EAST 500 NORTH
FILLMORE, UTAH 84631

Travertine #1 Quarry Expansion
Environmental Assessment

TEAM LEADER:

Sheri Wysong, Physical Science Technician

PARTICIPATING STAFF:

Gale Bennett, Wild Horse Specialist
Paul Caso, Rangeland Management Specialist
Brent Crosland, Range Technician
Nancy DeMille, Realty Specialist
Lynn Fergus, Outdoor Recreation Planner
Harvey Gates, Supervisory Range Conservationist
Eric Kreusch, Archaeologist
Melanie Mendenhall, Rangeland Management Specialist
Mark Pierce, Wildlife Biologist
Neal Scoresby, Area Hazardous Material Coordinator
Ron Teseneer, Geologist

Reviewed By:

House Range Environmental Coordinator — June 12, 1998 — Date

Approved By:

Lee Lowdy

House Range Resource Area Manager — 6-18-98 — Date

PLAN CONFORMANCE/NEPA COMPLIANCE RECORD

NEPA Document No. J-050-098-097EA
BLM Office: House Range Resource Area Job No. UTU-072860-01
Proposed Action Title\Type: Travertine #1 Limestone Quarry
Location of Proposed Action: T. 14 S., R. 3 W. Section 14 SE¼
Description of the Proposed Action: B. E. G. Resources has been operating a small quarry in Dog Valley for 3 years. It has exceeded the 5-acre threshhold, and a Plan of Operations has been submitted, and NEPA document prepared.

Applicant (If Any): B. E. G. Resources

PART I: PLAN CONFORMANCE REVIEW. This proposed action is subject to the following land use plan:

Name of Plan:	Date Approved:
House Range Resource Area Management Plan and Record of Decision	October 28, 1987

The proposed action has been reviewed for conformance with this plan (43 CFR 1610.5, BLM MS 1617.3) and is in conformance with the HRRA Record of Decision on page 77, item 6.

Surname(s) of Reviewer(s)

PART II NEPA REVIEW.

A. **Categorical exclusion review.** This proposed action qualifies as a categorical exclusion under 516 DM 6, Appendix 5. 4. F.(10) It has been reviewed to determine if any of the exceptions described in 516 DM 2, Appendix 2, apply.

Surname(s) of Reviewer(s)

Remarks: Disposal of mineral materials such as sand, stone, gravel, pumice, pumicite, cinders, and clay, in amounts not exceeding 50,000 cubic yards or disturbing more than 5 acres, except in riparian areas.

PART III: DECISION. To accept the proposed action as written with the mitigations shown below.

Rationale: The decision to allow the proposed action is based on the following five reasons:

1. The proposed action would not result in any undue or unnecessary environmental degradation.

2. The proposed action is consistent with the House Range Resource Area Resource Management Plan, Record of Decision, Saleable Minerals, which states on page 77, item 6, "The entire resource area will be open to mineral disposal on a case-by-case basis, except for those areas identified as oil and gas leasing Categories 3 & 4. Category 3 & 4 fluid mineral leasing and/or mineral withdrawal do not occur at the location of the proposed sale.

3. Potential impacts can be adequately mitigated by contract stipulations.

4. Operations are not proposed in riparian areas.

5. During the public review period, no objections or comments were received concerning the proposed action.

Mitigation: Stipulations

1. The operator shall effect a minimum of vegetative and soil disturbances consistent with practical construction operations.

2. The operator shall salvage and store topsoil in a designated area until reclamation.

3. Authorized grazing users shall have access to the area for grazing purposes, except for areas that have been fenced for safety or to attempt to reestablish vegetation.

4. The operator shall maintain the mine site, equipment, and facilities so as to not endanger human life, wildlife, or livestock. All highwalls will be bermed, and if necessary, a fence will be constructed to prevent livestock from entering the operations area.

5. The operator shall maintain proper drainage to avoid areas of standing water. Natural drainage shall not be interrupted and excavated material shall not be placed in a drainage where it could be washed downstream. A storm water permit will be obtained from the Utah Division of Water Quality.

6. The operator will consult with the Utah Department of Transportation to ensure that the haul road can safely be entered from and exited to Highway 132.

7. The operator will consult with Questar to determine if the company has concerns about heavy equipment and haul trucks crossing its gas pipeline.

8. If haul trucks regularly enter or exit Highway 132 at the point designated as "A" on Attachment B, the operator will install a cattleguard at the site. If the operator prefers, a temporary fence (see specifications in mitigation 19) can be constructed around the entire area of operations, as indicated by the red line on Attachment B. This would preclude the need for a cattleguard, and would prevent cattle from disturbing vegetation during reclamation. A gate must be installed at point "C" indicated on the same attachment.

9. If, after a period of nonoperation, if a raptor nest is found in the quarry area, the operator shall notify the Authorized Officer 96 hours in advance of resuming activities. BLM staff shall, within 96 hours, inspect the site. Consultation with Fish and Wildlife Service may be required under Section 7 of the Endangered Species Act.

10. The operator shall not injure, alter, destroy, or collect any site, structure, object, or other value of historical, archaeological, paleontological, or other cultural importance. The operator shall immediately bring to the attention of the BLM any and all antiquities or other values of cultural or scientific interest, including but not limited to historic and prehistoric ruins, fossils and artifacts, discovered as a result of operations under this contract, and shall leave such discoveries intact until told to proceed by the BLM. The BLM shall evaluate the discoveries brought to its attention and shall determine, in five working days, what action shall be undertaken prior to proceeding with any operations that might be destructive of the discovery.

11. The operator shall promptly remove and dispose of all waste caused by the operations as directed by the Authorized Officer. "Waste" refers to all discarded matter including human waste, trash, garbage, refuse, petroleum products, coolants, ashes and equipment. Wastes shall be disposed in an authorized landfill.

12. The operator shall disclose all hazardous materials associated with operations and their use, storage, transport, quantity, generation and disposal. Information regarding hazardous materials can be obtained from the State of Utah, department of Environmental Quality, Division of Solid and Hazardous Waste at:

288 North 1460 West
Salt Lake City, Utah 84114-4880

The operator is required to contact the Department of Environmental Quality (DEQ), Emergency Response Section (ERS) at the Sections 24-hour response number (801-536-4123) immediately of a spill or discharge of hazardous substances.

13. No explosives or fuels shall be left on site during periods of quarry inactivity. All explosives shall be stored in a powder magazine.

14. The operator shall place a berm around any petroleum products stored on or above the ground to contain potential spills. No waste oil or other petroleum will be disposed of on the project area or any other public lands. All waste oil will be properly contained and removed to an authorized waste oil disposal site. If any petroleum products are spilled, the operator must immediately contain the spill, remove and dispose of the substance spilled, as well as all contaminated soil, and take it an authorized disposal site.

15. Human waste will be contained in a chemical toilet.

16. The operator shall control excessive dust by watering the site as needed or required by the Authorized Officer. Air quality permits will be obtained from the Utah Division of Air Quality.

17. The operator will recontour the quarry area to approximate the original contour. No final slope shall exceed 3 (horizontal): 1 (vertical). No highwalls will be left. Road cuts will be recontoured. Salvaged topsoil shall be spread across the recontoured areas, except for the rocky outcrops. 4-5 tons per acre of manure mulch will be spread on top of the topsoil and roads. The surface will then be ripped to a depth of 18 inches.

18. The operator will apply the following seed mixture over the ripped surface:

Species	Common Name	lbs/acre
Agropyron cristatum	Hycrest wheatgrass	1.0
Elymus hispidus	Alcar wheatgrass	2.0
Agropyron smithii	Western wheatgrass	2.0
Oryzposis hymenoides	Indian ricegrass	2.5
Penstemon palmeri	Palmer's penstemon	0.5
Medicago sativa	Ladac Alfalfa	1.0
Melilotus officinalis	Yellow sweetclover	0.5
Sphaeralcea coccinea	Scarlet globemallow	0.5
Atriplex canescens	Fourwing saltbrush	1.0
Atriplex confertifolia	Shadscale	1.0
Chrysothamnus nauseosus	Rubber rabbitbrush	0.5
Kochia prostrata	Forage Kochia	0.5

Pure, live seed will be used. The mixture will be handbroadcast, then a harrowed to a depth of 12 inches, except for the Forage Kochia, which will be handbroadcast after harrowing. Seeding should take place in the fall, after the first frost.

19. Unless previously enclosed during the operation, the operator will fence the area indicated by the blue line on Attachment B during reclamation to prevent livestock from disturbing the immature vegetation. The fencing specifications are highlighted in Attachment C. Since the fence is a temporary one, posts can be spaced 33 feet apart, with 3 spacers between each post. On steep terrain, the span between each post will be 16½ feet. H Brackets will be installed at each corner and gate, as detailed in the drawing.

20. The operator will reclaim all improved roads, except for the segment indicated in yellow in Attachment B. The culvert indicated at point "B" in the same attachment will be removed.

If a cattleguard was installed at Point "A" on Attachment B, upon reclamation the operator will remove it. The opening in the fence at the same point will be permanently secured in order to discourage further use of the road.

21. The operator must control noxious weeds, both in the active mine area, and on the reclaimed portions.

22. Once a 70% revegetation success has been achieved, the operator shall remove the temporary fence.

23. The operator shall be responsible for and diligently supervise the actions of any contractor and/or subcontractor.

24. No materials extracted from the claims shall be sold by the operator for use as common variety minerals such as road base or sewer rock.

25. Approval of this Plan of Operations will not now, nor in the future, serve as a determination of the validity nor ownership of any mining claim included under this Plan of Operation.

Authorized Official: Rex Rowley Date: 6-18-98

CHAPTER I

INTRODUCTION/PURPOSE AND NEED

A. Introduction and Background

B.E.G. Resources (BR) operates the Travertine #1 Mine, a small limestone quarry in Juab County, Utah. The processed material is hauled about 25 miles to Intermountain Power Project (IPP) in Millard County, Utah, where it is used in the scrubbers at the power plant.

Aerial photos reveal that the quarry was originally opened up between 1958 and 1976, then was abandoned until 1995, when Western States Minerals (WSM) filed a notice to disturb less than 5 acres at the location. The notice stated intent to improve the already existing roads to the site, blast loose the limestone, then crush and screen it on site. The notice was accepted on April 11, 1995. The operation proceeded with few significant changes from its initial proposal, except that the operator changed from WSM to BR. On November 12, 1997, it was determined that the Travertine #1 Mine had exceeded five acres of surface disturbance, and the BLM required the operator to submit a Plan of Operations (see Attachment A).

B. Purpose and Need

The purpose of the proposed action is to expand and continue BR's existing operation. The operation has not changed in character from its initial development, but has exceeded its original estimate of the amount of surface it must disturb in order to continue the operation into the foreseeable future.

C. Land Use Plan Conformance Statement

The proposed action is contained entirely within the House Range Resource Area (HRRA), and therefore the proposed action and alternatives described below are in conformance with the HRRA Resource Management Plan (RMP), dated October 28, 1987, management prescriptions, and are consistent with Federal, State and local laws, regulations, and plans.

CHAPTER II

PROPOSED ACTION AND ALTERNATIVES

A. Proposed Action

The Travertine #1 Mine consists of the quarry, a crushing and screening plant, stockpiles, powder magazine, and a loading area and haul road. The present facilities currently affect 6.5 acres. It is proposed to increase that to approximately 10.34

acres of surface disturbance (Table 1).

Table 1
Existing and Proposed Surface Disturbance

Facility	Surface Disturbance (acres)
Pit	4.39
Operation Area (including stockpiles)	3.13
Access Roads	2.82
Total	10.34

It is not anticipated that the acreage affected by the roads will increase, just the cumulative area of the pit and operation area.

The first stage of creating new surface disturbance is removing and stockpiling the topsoil. There is no overburden to be removed. Blast holes are drilled into the limestone outcrop, and the material is blasted loose with a mixture of ammonium nitrate and fuel oil.

A front-end loader transports the material to the crushing and screening plant, where it is processed by a separate contractor, who provides the equipment. Mining and processing the material is an intermittent activity, when the quarry is operative a stockpile is produced, which is then depleted during inactive periods. Equipment for loading the trucks is always on site, but equipment for the rest of the operation is present only when the operation is active.

B. No Action Alternatives

If the No Action Alternative is pursued, the operation would change its scope, and continue operations under a Notice.

CHAPTER III

AFFECTED ENVIRONMENT

A. Proposed Action

General Setting

The proposed action is located about 20 miles southwest of Nephi, Utah. The legal description is the SE¼ of Section 14, Township (T.) 14 South, Range (R.) 3 W., SLBM. The quarry is located along the eastern edge of the Basin and Range physiographic province. This province is characterized by relatively narrow

mountain ranges (horsts) separated by broad, flat valleys (basins or grabens) with closed drainages (Hintze, 1968). The elevation is around 1550 meters.

The climate is semi-arid, characterized by limited precipitation, low relative humidity, rapid evaporation, high frequency of clear skies, and large daily and annual ranges in temperature. Winters are moderately cold, summers are mostly hot and rainless. Spring and fall weather is highly variable from year to year, it may exhibit extended fair, mild weather or rain and snow storms. Average annual precipitation exceeds 10 inches at the higher elevations, and is between 8 and 10 inches for the remainder of the area (Horton, 1989).

The following critical elements of the human environment are not present or are not affected by the proposed action or alternatives in this EA (see Attachment A):

Air Quality
Areas of Critical Environmental Concern
Cultural Resources
Farm Lands (prime or unique)
Floodplains
Native American Religious Concerns
Threatened, Endangered or Sensitive Species (Plant)
Threatened, Endangered or Sensitive Species (Animal)
Wastes (hazardous or solid)
Water Quality (drinking/ground)
Wetlands/Riparian Zones
Wild Horse and Burro
Wild and Scenic Rivers
Wilderness

Bureau specialists have further determined that Paleontology, Forestry, Recreation, Watershed and Water Rights, are either not present or not affected by the proposed action.

Resources Present and Brought Forward for Analysis

1. Livestock Grazing/Range

The quarry is located within the Rocky Ford cattle grazing allotment. The permittees are represented by the Rocky Ford Grazier Association, the president of which is Gordon Nielson of Leamington, Utah. The allotment has not been grazed for two years, since the Leamington Complex fire burned over most of it during the summer of 1996.

2. Lands

The haul road to the quarry connects with Highway 132, Right-of-Way UTU-062657, at two locations. It also crosses

a Questar pipeline, Right-of-Way UTU-68170, at two places. An alternative option configures the haul road so that it enters and exits the Highway 132 at the same point, and crosses the pipeline only once.

3. Mineral Resources

Travertine is a dense, finely crystallized variation of limestone, which is primarily composed of calcium carbonate ($CaCO_3$). In U.S. v. Foresyth, 100 IBLA 185, 242 (1987) the Interior Board of Land Appeals determined that chemical grade limestone must consist of at least a 95% total of calcium and magnesium carbonates for it to be considered locatable (Maley). IPP requires at least a 93% $CaCO_3$ grade for use in its scrubbers, with a maximum of 2.5% magnesium carbonate ($MgCO_3$). The scrubbers remove sulfur dioxide (SO_2) from combustion gases by reacting it with $CaCO_3$ and oxygen (O_2) to produce calcium sulfate ($CaSO_4$) and carbon dioxide (CO_2).

Crushed limestone used for purposes such as road base, sewer rock, etc., is not locatable, and if produced as a by-product of the operation, it must be purchased from the BLM.

4. Soils

The soils on the site have been classified as LdE and LdF-Lodar-Rock outcrop complexes (see Appendix B in the attached Plan). They are shallow, well drained and moderately permeable.

5. Vegetation/Noxious Weeds

The 1996 Leamington Complex fire burned the areas north and east of quarry area. It was seeded with the following seed mixture:

Species	Common Name
Elymus junceus	Russian wildrye
Agropyron cristatum	Hycrest wheatgrass
Elymus hispidus	Alcar wheatgrass
Elymus cinereus	Great Basin wildrye
Atriplex canescens	Four-Wing Salt Brush

Unburned areas adjacent to the quarry are dominantly populated with the following species:

Purshia tridentata	Bitterbrush
Elymus smithii	Bluebunch wheatgrass
Agropyron smithii	Western wheatgrass
Artemesia tridentata	Big sagebrush
Juniperous osteosperma	Utah juniper

No Threatened, Endangered, or Sensitive Plant Species are know to occur in the vicinity of the quarry. An on-the-ground survey took place on April 10, 1995.

No serious infestations of noxious weeds have been identified in the vicinity of the quarry. However, there is the potential for Squarrose knapweed (*Centaurea virgata* Lam. var. *squarrosa*), Dyer's Woad (*Isais tinctoria L.*), Whitetop (*Cardria draba*) or the various species of thistle to occur.

6. Visual Resource Management

The quarry is located within a Class IV visual resource management area. The objective of this class is to provide for management activities which require major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high. These management activities may dominate the view an be the major focus of viewer attention.

7. Wildlife

Species that may be found within the immediate vicinity of the quarry are: mule deer, pronghorn antelope, coyote, bobcat, badger, black-tailed jackrabbit, desert cottontail, antelope, ground squirrel, American kestral, red-tailed hawk, ferruginous hawk, golden eagle, prairie falcon, spotted towhee, chipping sparrow, horned lark, lark sparrow, sage thrasher, mourning dove, common raven, western meadowlark, vespar sparrow, black-throated sparrow, and western kingbird, to name a few.

Species which are federally listed include the peregrin falcon and the bald eagle. Peregrine falcons migrate through the area during the spring and fall. Bald eagle are winter residents. State listed species which occur or may occur include the following: ferruginous hawk, burrowing owl, short-eared owl, grasshopper sparrow, western spotted bat, Allen's big-eared bat, western red bat, big free-tailed bat, Brazilian free-tailed bat, and Townsend's big-eared bat.

B. No Action Alternative

The description of the affected environment for the No-Action alternative would be the same as that for the proposed action.

CHAPTER IV

ENVIRONMENTAL CONSEQUENCES

A. Proposed Action

1. Livestock Grazing/Range

Livestock would displaced from the quarry for the duration of the mine life. There would be no appreciable loss of range on the allotment, and no reduction of AUM's is anticipated. A new fence around the perimeter of the allotment is currently being constructed, the proposed quarry expansion will not interfere with that. However, the allotment is bisected by Highway 132, which is fenced on both sides. The haul road for the quarry passes through this fence in two places. The northwest crossing has had a cattleguard placed across it, but the southwest one still has a gate. Presumably this has not been a problem, as there have been no livestock on the allotment since that part of the road began to be used heavily, however, difficulties may arise when cattle return to the area.

Cattle grazing the establishing vegetation on the reclaimed areas could destroy the young plants.

2. Lands

As haul trucks enter and leave the quarry, they could interfere with traffic on the highway, especially if the ingress and egress is out of sight of oncoming traffic.

The gas pipeline may not be buried deeply enough to prevent damage by heavy trucks and equipment passing over it, and could be damaged by such activities as installing cattleguards.

3. Mineral Resources

An irretrievable depletion of the limestone outcrop would take place.

3. Soils

Soils in the impacted areas will be removed and stockpiled as much as practical, and during reclamation will be spread over the recontoured site, so there should be only a small loss of soil. Soils in the surrounding areas may be compacted due to heavy machinery and truck traffic passing over them.

4. Vegetation/Noxious Weeds

Vegetation would be destroyed in and around the site of the quarry. After the limestone has been mined out, seed would be applied to the recontoured site to try to reestablish desirable flora on the site.

Initially grasses and forbs may be expected to dominate disturbed areas. Eventually, natural succession would restore the plant community to its predisturbed composition.

Noxious weeds typically take advantage of sites that have been denuded of their native vegetation, and the quarry would be vulnerable to their invasion. If no weed control action is taken, the quarry could become infested with noxious weeds. Heavy equipment and trucks could spread seed along the roadways.

5. Visual Resource Management

The quarry is visible from Highway 132, and will detract from the landscape until it is reclaimed. Upon recontouring and revegetation, it will become less noticeable.

6. Wildlife

Habitat in the area of the quarry will be lost until the site is reclaimed. There would not be a significant loss of habitat to any one species.

B. No Action Alternative

The no action alternative would compel the BLM to order the quarry to cease and desist operations until enough reclamation is completed to bring the operation under five acres of surface disturbance.

C. Mitigating Measures

1. The operator shall effect a minimum of vegetative and soil disturbances consistent with practical construction operations.

2. The operator shall salvage and store topsoil in a designated area until reclamation.

3. Authorized grazing users shall have access to the area for grazing purposes, except for areas that have been fenced for safety or to attempt to reestablish vegetation.

4. The operator shall maintain the mine site, equipment, and facilities so as to not endanger human life, wildlife,

or livestock. All highwalls will be bermed, and if necessary, a fence will be constructed to prevent livestock from entering the operations area.

5. The operator shall maintain proper drainage to avoid areas of standing water. Natural drainage shall not be interrupted and excavated material shall not be placed in a drainage where it could be washed downstream. A storm water permit will be obtained from the Utah Division of Water Quality.

6. The operator will consult with the Utah Department of Transportation to ensure that the haul road can safely be entered from and exited to Highway 132.

7. The operator will consult with Questar to determine if the company has concerns about heavy equipment and haul trucks crossing its gas pipeline.

8. If haul trucks regularly enter or exit Highway 132 at the point designated as "A" on Attachment B, the operator will install a cattleguard at the site. If the operator prefers, a temporary fence (see specifications in mitigation 19) can be constructed around the entire area of operations, as indicated by the red line on Attachment B. This would preclude the need for a cattleguard, and would prevent cattle from disturbing vegetation during reclamation. A gate must be installed at point "C" indicated on the same attachment.

9. If, after a period of nonoperation, if a raptor nest is found in the quarry area, the operator shall notify the Authorized Officer 96 hours in advance of resuming activities. BLM staff shall, within 96 hours, inspect the site. Consultation with Fish and Wildlife Service may be required under Section 7 of the Endangered Species Act.

10. The operator shall not injure, alter, destroy, or collect any site, structure, object, or other value of historical, archaeological, paleontological, or other cultural importance. The operator shall immediately bring to the attention of the BLM any and all antiquities or other values of cultural or scientific interest, including but not limited to historic and prehistoric ruins, fossils and artifacts, discovered as a result of operations under this contract, and shall leave such discoveries intact until told to proceed by the BLM. The BLM shall evaluate the discoveries brought to its attention and shall determine, in five working days, what action shall be undertaken prior to proceeding with any operations that might be destructive of the discovery.

11. The operator shall promptly remove and dispose of all waste caused by the operations as directed by the Authorized Officer. "Waste" refers to all discarded matter including human waste, trash, garbage, refuse, petroleum products, coolants, ashes and equipment. Wastes shall be disposed in an authorized landfill.

12. The operator shall disclose all hazardous materials associated with operations and their use, storage, transport, quantity, generation and disposal. Information regarding hazardous materials can be obtained from the State of Utah, department of Environmental Quality, Division of Solid and Hazardous Waste at:

288 North 1460 West
Salt Lake City, Utah 84114-4880

The operator is required to contact the Department of Environmental Quality (DEQ), Emergency Response Section (ERS) at the Sections 24-hour response number (801-536-4123) immediately of a spill or discharge of hazardous substances.

13. No explosives or fuels shall be left on site during periods of quarry inactivity. All explosives shall be stored in a powder magazine.

14. The operator shall place a berm around any petroleum products stored on or above the ground to contain potential spills. No waste oil or other petroleum will be disposed of on the project area or any other public lands. All waste oil will be properly contained and removed to an authorized waste oil disposal site. If any petroleum products are spilled, the operator must immediately contain the spill, remove and dispose of the substance spilled, as well as all contaminated soil, and take it an authorized disposal site.

15. Human waste will be contained in a chemical toilet.

16. The operator shall control excessive dust by watering the site as needed or required by the Authorized Officer. Air quality permits will be obtained from the Utah Division of Air Quality.

17. The operator will recontour the quarry area to approximate the original contour. No final slope shall exceed 3 (horizontal): 1 (vertical). No highwalls will be left. Road cuts will be recontoured. Salvaged topsoil shall be spread across the recontoured areas, except for the rocky outcrops. 4-5 tons per acre of manure mulch will be spread on top of the topsoil and roads. The surface will then be ripped to a depth of 18 inches.

18. The operator will apply the following seed mixture over the ripped surface:

Species	Common Name	lbs/acre
Agropyron cristatum	Hycrest wheatgrass	1.0
Elymus hispidus	Alcar wheatgrass	2.0
Agropyron smithii	Western wheatgrass	2.0
Oryzposis hymenoides	Indian ricegrass	2.5
Penstemon palmeri	Palmer's penstemon	0.5
Medicago sativa	Ladac Alfalfa	1.0
Melilotus officinalis	Yellow sweetclover	0.5
Sphaeralcea coccinea	Scarlet globemallow	0.5
Atriplex canescens	Fourwing saltbrush	1.0
Atriplex confertifolia	Shadscale	1.0
Chrysothamnus nauseosus	Rubber rabbitbrush	0.5
Kochia prostrata	Forage Kochia	0.5

Pure, live seed will be used. The mixture will be handbroadcast, then a harrowed to a depth of 12 inches, except for the Forage Kochia, which will be handbroadcast after harrowing. Seeding should take place in the fall, after the first frost.

19. Unless previously enclosed during the operation, the operator will fence the area indicated by the blue line on Attachment B during reclamation to prevent livestock from disturbing the immature vegetation. The fencing specifications are highlighted in Attachment C. Since the fence is a temporary one, posts can be spaced 33 feet apart, with 3 spacers between each post. On steep terrain, the span between each post will be 16½ feet. H Brackets will be installed at each corner and gate, as detailed in the drawing.

20. The operator will reclaim all improved roads, except for the segment indicated in yellow in Attachment B. The culvert indicated at point "B" in the same attachment will be removed.

If a cattleguard was installed at Point "A" on Attachment B, upon reclamation the operator will remove it. The opening in the fence at the same point will be permanently secured in order to discourage further use of the road.

21. The operator must control noxious weeds, both in the active mine area, and on the reclaimed portions.

22. Once a 70% revegetation success has been achieved, the operator shall remove the temporary fence.

23. The operator shall be responsible for and diligently

supervise the actions of any contractor and/or subcontractor.

24. No materials extracted from the claims shall be sold by the operator for use as common variety minerals such as road base or sewer rock.

25. Approval of this Plan of Operations will not now, nor in the future, serve as a determination of the validity nor ownership of any mining claim included under this Plan of Operation.

D. Residual Impacts

An unknown amount of high-grade limestone will be irretrievably consumed. Reclamation will probably not restore the site to a non-noticeable state, however, it will probably be preferable to the unreclaimed stated the site was in before the operation. Some fugitive dust may remain after mitigation.

E. Cumulative Impact Analysis

There are three other quarries within ten miles of the Travertine #1 (see Attachment D). The Ashgrove Limestone Quarry is about 4 miles to the southwest, and is located on Forest Service administered property. The Ashgrove Sandstone Quarry is about 1.5 miles to the north, on public lands. The Ashgrove Navajo Sandstone Quarry is about 9 miles to the northeast, on public lands. It is currently inactive and in the process of being reclaimed.

The Ashgrove Sandstone Quarry is also within the Rocky Ford Grazing allotment. Together, with the Travertine #1 Quarry, about 20 acres of surface will be disturbed. Another 15 to 90 acres may be fenced off to prevent cattle from being injured or disturbing young vegetation. The allotment contains a total of 10,008 acres, so livestock would temporarily be displaced from about .4 to 1.1% of the total surface.

F. Monitoring

BLM policy requires that an operation of this type be inspected twice each year.

CHAPTER V

CONSULTATION AND COORDINATION

A. List of Preparers

See cover page.

B. Persons, Groups or Agencies Consulted

Geneal Anderson, Tribal Chair, Southern Paiute Consortium

Betsy Chapoose, Director, Cultural Rights and Protection Department, Uintah and Ouray Tribal Committee, Ute Indian Tribe

Wayne Hedberg, Utah Division of Oil, Gas and Mining

Melton Hooper, Environmental Coordinator, Goshute Tribal Council

Les Lovell, Intermountain Power Service Corporation

Tom Munson, Utah Division of Oil, Gas and Mining

Phil Pikyavit, Band Chair, Kanosh Band, Southern Paiute Tribe

C. Statement of Public Interest

This action was posted on the electronic bulletin board on May 7, 1998. No comments were received from that date until the date this document was completed.

Attachment A

INTERDISCIPLINARY TEAM CHECKLIST

PROPOSED ACTION: Dog Valley Limestone Quarry

TEAM LEADER: Sheri Wysong

DATE: May 5, 1998

Identify the important impacts created by the proposed action on your assigned resources. Also check the list below for critical elements.

CRITICAL ELEMENTS	AFFECTED yes	AFFECTED no	INITIAL
Air Quality		✓	PL
ACECs		✓	
Cultural Resources		✓	EJK
Farmlands, Prime/Unique		✓	PL
Floodplains		✓	PL
Nat. Amer. Rel. Concerns		✓	EJK
T & E & S Plants		✓	MJM
T & E & S Animals		✓	
Wastes, Hazardous/Solid		✓	
Water Quality		✓	
Wetlands/Riparian Zones		✓	
Wild Horse and Burro		✓	AB
Wild & Scenic Rivers		✓	
Wilderness		✓	

Short Description of impacts:

~~R Toseneer~~: Minerals No conflict S. Wysong 6/10/98
S. Wysong

N. DeMille: Lands SE¼ NE¼ fuel pipeline R/W UTU-68170 and Federal Highway Administration road R/W SL-067657 CLS HWY 132 segment SLC 6/11/98

H. Gates: Range A new fence is to be constructed in Section 15, if they need to cut any fences - they need to let us know. Are there plans to fence across of their pit? - HGates 5/14/98

B. Crosland: Forestry No Conflict with Forestry BDC 5/8/98

M. Mendenhall: TES Plants No impacts see previous clearance done 4/10/95 MJM 5/27/98

L. Fergus: Recreation, Wilderness, (VRM) No Conflict 5/27/98 F

M. Pierce: TES Animals No conflict MP

M. Pierce: Wildlife-Big Game No conflict MP

M. Pierce: Wildlife-Nongame & Upland Game No conflict MP

~~M. Mendenhall~~: Riparian No conflict MP

G. Bennett: Wild Horse And Burro No Conflict w/wild horses 6/10/98 AB

E. Kruesch: Cultural Resources/Paleontology previous clearance 4/5/95

P. Caso: Watershed No Conflict 5-11-98

H. Gates: Water Rights No conflict w/water Rights HGates 5/14/98

P. Fosse: Assist. A. M. No conflict. PF 6/10/98

WSRA/HRRA PROJECT PROPOSAL WORKSHEET

Project/Case No. _____

1. Project Name: Dog Valley Limestone Quarry

2. Project Location: T. 14 S., R. 3 W., Section 14

3. Applicant(s)/Permittee(s): B. E. G. Resources

4. When is proposal scheduled to occur: Currently active

5. Allotment Name:

6. Subactivity (for BLM projects):

7. Contributed Funds:

8. Brief Summary of Project Proposal:

B. E. G. Resources has been operating a small quarry in Dog Valley for 3 years. It has exceeded the 5-acre threshhold, and ~~now~~ a Plan of Operations (attached) has been submitted, and an EA must be prepared.

WPO

9. Justification/Objectives:

To bring the operation into compliance with the 43 CFR 3809 regulations.

10. Alternatives:

To not approve the EA, and to force the quarry to shut down until enough acreage has been reclaimed to bring the operation back under 5 acres.

11. Prepared By: Sheri Wysong Date: May 5, 1998

12. Approved By: Date:

Items 5, 6, and 7 are not required for non-renewable staff project proposals.

STATE OF UTAH, DEPARTMENT OF ENVIRONMENTAL QUALITY, DIVISION OF WATER QUALITY

288 North 1460 West, P.O. Box 144870, Salt Lake City, Utah 84114-4870 (801)538-6146

STATE OF UTAH NOI FORM

Notice of Intent (NOI) for Coverage Under the UPDES General Multi-Sector Storm Water Permit for Discharges Associated with Industrial Activity, Permit No. UTR000000. INSTRUCTIONS ON BACK PAGE

sion of this Notice of Intent constitutes notice that the party identified in Section I of this form intends to be authorized by a UPDES permit issued for storm water discharges associated with industrial activity in the State of Utah. Becoming a permittee obligates such discharger to comply with the terms and conditions of the permit. ALL NECESSARY INFORMATION MUST BE PROVIDED ON THIS FORM. A different NOI form is provided for construction activities disturbing over 5 acres.

I. FACILITY OPERATOR INFORMATION

Name: BIG RESOURCES LLC Phone: 8011754520 0

Address: PO BOX 361 Status of Owner/Operator: P

City: NEPHI State: UT Zip: 84648-

Facility Contact Person: NEAL JENSEN Phone: 8011754520 0

Facility Contact Person Title: MANAGING PARTNER

II. FACILITY SITE/LOCATION INFORMATION

Is the facility located on Indian Lands? (Y or N) N

Name: TRAVERTINE #1 MINE

Address: County: JUAB

City: State: UT Zip:

La Longitude: Quarter: SE Section: 14 Township: 14S Range: 3W

Site Contact Person: NEAL JENSEN Phone: 8011754520 0

Site Contact Person Title: MANAGING PARTNER

III. SITE ACTIVITY INFORMATION

Name of Municipality which Operates the Storm Sewer System: NONE

Receiving Water Body: SEVIER RIVER

	Yes	No
Is there existing quantitative storm water discharge data?	☐	☒
Is the facility required to do analytical monitoring? (See permit conditions Part V. and Sector monitoring requirements.)	☒	☐
s the facility required to do visual monitoring? (See permit conditions near the end of applicable Sector(s); Appendix A to AD)	☒	☐
s the facility required to submit monitoring data or retain it on site? (Submit) ☐ (Retain on site)		☒
s This a New Facility, or is it an Existing Facility? (New) ☒ (Existing)		☐

f This is an Existing Facility, and the Start-up Date was After Oct. 1992, Please Fill in the Start-up Month: Month (Jan, Feb., etc.): Year:

IC or ignated Activity Code: Primary: 2nd: 3rd: 4th:

You e Other Existing UPDES Permits, Enter Permit #'s:

V. SECTOR IDENTIFICATION:

The General Multi-Sector Permit covers all industrial activity that is required by law to be covered by a storm water permit. On e following pages the sectors are listed with a description of the industrial activity that is covered by that sector. Please check each sector that covers industrial activities hich occur at your site. The sector covered in Appendix AD is the catch-all sector and should only be used if positively no other sector covers your industrial activity. If you ould select AD, please call the Storm Water Coordinator at DWQ to discuss the need for choosing Sector AD (Non-Classified Facilities).

on the site of such operations." Industries in SIC Major Group 13 include the extraction and production of crude oil, natural gas, oil sands and shale; the production of hydrocarbon liquids and natural gas from coal; and associated oil field service, supply and repair industries. This section also covers petroleum refineries listed under SIC code 2911. Contaminated storm water discharges from petroleum refining or drilling operations that are subject to nationally established BAT or BPT guidelines found at *40 CFR 419* and *435* respectively are not included. [Note that areas eligible for coverage at petroleum refineries will be very limited because the term "contaminated runoff," as defined under *40 CFR 419.11*, includes "... runoff which comes into contact with any raw material, intermediate product, finished product, by-product or waste product located on p refinery property." Areas at petroleum refineries which may be eligible for permit coverage, provided discharges from these areas are not co-mingled with " ated runoff," include: vehicle and equipment storage, maintenance and refueling areas. Most areas at refineries will not be eligible for coverage including: raw mat..., intermediate product, by-product, waste material, chemical, and material storage areas; loading and unloading areas; transmission pipelines, and, processing areas.] Not covered are: inactive oil and gas operations occurring on Federal lands where an operator cannot be identified are not covered by this permit.

☒ **J. Mineral Mining and Processing Facilities** – active and inactive mineral mining and processing facilities (generally identified by Standard Industrial Classification (SIC) Major Group 14). Not covered are: 1) facilities associated with industrial activity which are subject to an existing effluent limitation guideline (*40 CFR Part 436*), 2) inactive mineral mining activities occurring on Federal lands where an operator cannot be identified are not eligible for coverage under this permit.

☐ **K. Hazardous Waste Treatment Storage or Disposal Facilities** – facilities that treat, store, or dispose of hazardous wastes, including those that are operating under interim status or a permit under subtitle C of RCRA. [Disposal facilities that have been properly closed and capped, and have no significant materials exposed to storm water, are considered inactive and do not require permits (*UAC R317-8-3.8(6)(c)*).]

☐ **L. Landfills and Land Application Sites** – waste disposal at landfills, land application sites, and open dumps that receive or have received industrial wastes. Open dumps are solid waste disposal units that are not in compliance with Sate/Federal criteria established under RCRA Subtitle D. Not covered are: inactive landfills, land application sites, and open dumps occurring on Federal lands where an operator cannot be identified.

☐ **M. Automobile Salvage Yards** – facilities engaged in dismantling or wrecking used motor vehicles for parts recycling or resale and for scrap (SIC Code 5015).

☐ **N. Scrap Recycling and Waste Recycling Facilities** – facilities that are engaged in the processing, reclaiming and wholesale distribution of scrap and waste materials such as ferrous and nonferrous metals, paper, plastic, cardboard, glass, animal hides (these types of activities are typically identified as SIC code 5093). Facilities that are engaged in reclaiming and recycling liquid wastes such as used oil, antifreeze, mineral spirits, and industrial solvents (also identified as SIC code 5093) are also covered under this section. Separate permit requirements have been established for recycling facilities that only receive source-separated recyclable materials primarily from non-industrial and residential sources (also identified as SIC 5093) (e.g., common consumer products including paper, newspaper, glass, cardboard, plastic containers, aluminum and tin cans). This includes recycling facilities commonly referred to as material recovery facilities (MRF).

☐ **O. Steam Electric Power Generating Facilities** – steam electric power generating facilities, including coal handling areas. Non-storm water discharges subject to effluent limitations guidelines are not covered by this permit. Storm water discharges from coal pile runoff subject to numeric limitations are eligible for coverage under this permit but are subject to the limitations established by *40 CFR 423*. Not covered are: ancillary facilities such as fleet centers, gas turbine stations, and substations that are not cor to a steam electric power generating facility are not covered by this permit. Heat capture co-generation facilities are not covered by this permit; however, dual fuel co- n facilities are included.

☐ **P. Vehicle Maintenance or Equipment Cleaning areas at Motor Freight Transportation Facilities, Passenger Transportation Facilities, Petroleum Bulk Oil Stations and Terminals, the United States Postal Service, or Railroad Transportation Facilities** – ground transportation facilities and rail transportation facilities (generally identified by Standard Industrial Classification (SIC) codes 40, 41, 42, 43, and 5171), that have vehicle and equipment maintenance shops (vehicle and equipment rehabilitation, mechanical repairs, painting, fueling and lubrication) and/or equipment cleaning operations are eligible for coverage under this section. Also covered under this section are facilities found under SIC code 4221-4225 (public warehousing and storage) that do not have vehicle and equipment maintenance shops and/or equipment cleaning operations but have areas (exclusive of access roads and rail lines) where material handling equipment or activities, raw materials, intermediate products, final products, waste materials, by-products or industrial machinery are exposed to storm water.

☐ **Q. Vehicle Maintenance Areas and Equipment Cleaning Areas of Water Transportation Facilities** – water transportation facilities that have vehicle (vessel) maintenance shops and/or equipment cleaning operations. The water transportation industry includes facilities engaged in foreign or domestic transport of freight or passengers in deep sea or inland waters; marine cargo handling operations; ferry operations; towing and tugboat services; and marinas (facilities commonly identified by SIC code Major Group 44).

☐ **R. Ship or Boat Building and Repair Yards** – facilities engaged in ship building and repairing and boat building and repairing (SIC code 373).

☐ **S. Vehicle Maintenance Areas, Equipment Cleaning Areas or From Airport Deicing Operations located at Air Transportation Facilities** – establishments and/or facilities including airports, air terminals, air carriers, flying fields, and establishments engaged in servicing or maintaining airports and/or aircraft (generally classified under Standard Industrial Classification (SIC) code 45) which have vehicle maintenance shops, material handling facilities, equipment cleaning operations or airport and/or aircraft deicing/anti-icing operations. For the purpose of this permit, the term "deicing" is defined as the process to remove frost, snow, or ice and "anti-icing" is the process which prevents the accumulation of frost, snow, or ice. Only those portions of the facility or establishment that are either involved in vehicle maintenance (including vehicle rehabilitation, mechanical repairs, painting, fueling, and lubrication), equipment cleaning operations, or deicing/anti-icing operations are addressed under this section.

☐ **T. Wastewater Treatment Works** – treatment works treating domestic sewage or any other sewage sludge or wastewater treatment device or system, used in the storage, treatment, recycling, and reclamation of municipal or domestic sewage, including lands dedicated to the disposal of sewage sludge that are located within the confines of the facility with a design flow of 1.0 MGD or more, or required to have an approved pretreatment program under *40 CFR Part 403*.

☐ **U. Food and Kindred Products Facilities** – food and kindred products processing facilities (commonly identified by Standard Industrial Classification (SIC) code 20), nc eat products; dairy products; canned, frozen and preserved fruits, vegetables, and food specialties; grain mill products; bakery products; sugar and confectionery pro ts and oils; beverages; and miscellaneous food preparations and kindred products and tobacco products manufacturing (SIC Code 21), except for storm water discharges identified under paragraph I.B.3. where industrial plant yards; material handling sites; refuse sites; sites used for application or disposal of process wastewaters; sites used for storage and maintenance of material handling equipment; sites used for residential treatment, storage, or disposal; shipping and receiving areas; manufacturing buildings; and storage areas for raw material and intermediate and finished products are exposed to storm water and areas where industrial activity has taken place in the past and significant materials remain. For the purposes of this paragraph, material handling activities include the storage, loading, and unloading, transportation, or conveyance of any raw material, intermediate product, finished product, by-product, or waste product.

INSTRUCTIONS

NOTICE OF INTENT (NOI) FOR ST 'M WATER DISCHARGES ASSOCIATE TH INDUSTRIAL ACTIVITY TO BE CC RED UNDER THE UPDES GENERAL PE MIT

WHERE TO FILE THE NOI FORM

NOIs, with fee payment(s), must be sent to the following address:

Department of Environmental Quality
Division of Water Quality
P.O. Box 144870
Salt Lake City, UT 84114-4870

COMPLETING THE NOI FORM

ou must type or print, using upper-case letters, in the appropriate areas only. Please place ach character between the marks. Abbreviate if necessary to stay within the number of haracters allowed for each item. Use one space for breaks between words, but not for unctuation marks unless they are needed to clarify your response. If you have any iestions on this form, call (801) 538-6146.

EGINNING OF COVERAGE

orm Water General Permits are drafted to cover a facility quickly avoiding delays, refore there is no waiting time to receive coverage. The permittee should be aware that ough you may not have a permit in hand, if you have submitted a completed NOI with e permit fee you are covered by the permit and will be expected to conform to the nditions in the permit. If you wish you may contact the Division of Water Quality at)1) 538-6146, to receive a generic copy of the permit. After we receive the NOI and the mit fee we will send you an official copy of the permit including your specific permit mber.

ERMIT FEES *(MAKE CHECK PAYABLE TO: DIVISION OF WATER QUALITY)*

e permit fee is $500 (or is prorated) and it must be submitted with the NOI to authorize mediate coverage under the permit (except in the case of a state or local political division which are exempt from the permit fee). This provides five years of coverage er the permit (unless prorated). It is our policy to prorate the permit fee for temporary charges. Fees are prorated at $8.34 per month of coverage needed, except a $50 imum.

nittees who have a new facility that have begun operating after October 1, 1992, will prorated from the day they began operations until the expiration date of the General nit

NERAL INFORMATION

lities within municipalities (such as Salt Lake City or Salt Lake County) that have been d Municipal Storm Water Permits by DWQ must contact that city or the county and y them of the new permit status for the facility. If you have questions that have not answered above, or need an NOI for construction activities, please contact the Storm r Coordinator, Division of Water Quality, at (801) 538-6146.

CTION I - FACILITY OPERATOR INFORMATION

the legal name of the person, firm, public organization, or any other entity that tes the facility or site described in this application The name of the operator may or not be the same as the name of the facility. The responsible party is the legal entity controls the facility's operation, rather than the plant or site manager. Do not use a quial name. Enter the complete address and telephone number of the operator.

the appropriate letter to indicate the legal status of the operator of the facility.

F = Federal M = Public (other than Fed or State)
S = State P = Private

tact person is someone that we may contact, that has knowledge of the facility and t conditions, but not necessarily the person with signatory responsibility.

TION II - FACILITY/SITE LOCATION INFORMATION

the facility's or site's official or legal name and complete street address, including ate and ZIP code. If the facility or site lacks a street address, indicate the state, the e and longitude of the facility to the nearest 15 seconds, or the quarter, section, ip, and range (to the nearest quarter section) of the approximate center of the site. e whether the facility is located on Indian Lands. If the facility is located on Indian EPA form 3510-6 should be used and submitted to EPA Region VIII except for s on the Navajo Reservation or on the Goshute Reservation which should submit rm 3510-6 to Region IX.

TI - SITE ACTIVITY INFORMATION

orm discharges to a municipal separate sewer system, enter the name of the r of the municipality (e.g., municipality name, county name) and the receiving water lischarge from the municipal storm sewer if it is known. (A municipal separate ewer system (MS4) is defined as a conveyance or system of conveyances (including ith drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains) that is owned or operated by a state, city, town, county, district, association or other public body which is designed or used for collecting or conveying storm water).

If the facility discharges storm water directly to receiving water(s), enter the name of the receiving water.

Indicate whether or not the owner or operator of the facility has existing quantitative data that represent the characteristics and concentration of pollutants in storm water discharges.

To answer the questons concerning analytical or visual monitoring you must examine a copy of the permit, Part V. and the sectors (in the appedix) that your facility will fall into. Upon examination you will be able to determine your monitoring and reporting (whether data must be submitted or retained in a storm water pollution prevention plan file) requirements.

A facility is an existing facility if it has been in operation, it is a new facility if it has not begun operation but is about to

List, in descending order of significance, up to four 4-digit standard industrial classification (SIC) codes that best describe the principal products or services provided at the facility or site identified in Section II of the application.

For industrial activities defined in UAC 317-8-3.8(6)(c) & (d)1 to 11. that do not have SIC codes that accurately describe the principal products produced or services provided, the following 2-character codes are to be used:

HZ = Hazardous waste treatment, storage, or disposal facilities, including those that are operating under interim status or a permit under subtitle C of RCRA [UAC R317-8-3.8(6)(d)4.];

LF = Landfills, land application sites, and open dumps that receive or have received any industrial wastes, including those that are subject to regulation under subtitle D of RCRA [UAC R317-8-3.8(6)(d)5.];

SE = Steam electric power generating facilities, including coal handling sites [UAC R317-8-3.8(6)(d)7];

TW = Treatment works treating domestic sewage or any other sewage sludge or wastewater treatment device or system, used in the storage, treatment, recycling, and reclamation of municipal or domestic sewage [UAC R317-8-3.8(6)(d)9.].

If there are other UPDES permits presently issued for the facility or site listed in Section II, list the permit numbers. If an application for the facility has been submitted but no permit number has been assigned, enter the application number.

SECTION IV - SECTOR IDENTIFICATION

Select and check all the boxes indicating the sectors that describe activities that occur at the site described in section II.

SECTION V - CERTIFICATION

State statutes provide for severe penalties for submitting false information on this application form. State regulations require this application to be signed as follows:

For a corporation: by a responsible corporate officer, which means: (i) president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions, or (ii) the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

For a partnership or sole proprietorship: by a general partner or the proprietor; or

For a municipality, state, Federal, or other public facility: by either a principal executive officer or ranking elected official.

NOTICE OF INTENTION

LARGE MINING OPERATIONS

B.E.G. RESOURCES

TRAVERTINE I MINE

April 27, 1998

B.E.G. RESOURCES
PO Box 361
Nephi, Utah 84648

Table of Contents

Plates

1.0 Introduction

This document is being submitted by B.E.G. Resources (BR) in compliance with R647-4-103, Notice of Intention (NOI) to Commence Large Mining Operations.

1.1 Owner Information

The property to be mined is public domain, controlled by the Bureau of Land Management (BLM). A location map of the subject property is provided in Appendix A. The owners of record of the minerals to be mined are as follows:

Name	Address
Robert Steele	1055 N 400 E Nephi, UT 84648
Max Steele	296 N Center Santaquin, UT 84655
Terry Steele	PO Box 353 Santaquin, UT 84655

1.2 Operator Information

The operator of the mine is as follows:

B.E.G. Resources
PO Box 361
Nephi, UT 84628

Contact Person: Neal Jensen, Managing Partner
Phone: (801) 754-5200
Fax: (801) 754-5222

BR has obtained lease agreements with the mineral owners of record (Section 1.1).

2.0 Property Location and Access

The Travertine #1 is located in the SE 1/4 of Section 14, T14S, R3W, SLBM. It is located along Highway 132 approximately nineteen miles west southwest of Nephi, and nine miles northeast of Leamington. The location of the facility is shown in Appendix A. Proposed mining and processing operations are conducted approximately 400 to 600 feet northwest of Highway 132.

Access to the area to be mined is provided by previously constructed unimproved dirt roads. This road was the means of traveling to Leamington prior to construction of Highway 132. When Highway 132 was constructed, a cut was made through a hill allowing a better path for the highway than the original road, and regular use of road passing through what is now BR operations was discontinued. This road continued to have minimal use by: ranchers using the property for grazing; recreation; and; substantial use for fire fighting activities in 1996. The BR operations was used as a staging area for fire fighting activities during this event. Evidence of prior existence of this road is included in Appendix A, a photocopy of a USGS map, and in an aerial photograph in Appendix B. The road allows one way travel by haul trucks. The trucks may enter from Highway 132 east of the property, travel west and south along the road which gains in elevation to the mining/processing site where the trucks can be loaded, then continue travel southwest then south to enter Highway 132. An alternate haul truck route may be both entry and exit from the west Highway 132 connection.

3.0 Material to be Mined/Produced

The material to be mined is limestone. Products from operations will consist principally of 3/4" material produced through crushing/screening operations. This product is to be provided to Intermountain Power Service Corporation, a coal fired power plant located near Delta, as material to be used in SO_2 scrubbers.

Other products may include road base, sewer rock, and similar miscellaneous materials, however, the production and sale of these products is expected to be minimal.

4.0 Operation Plan

Operations to be conducted begin with the removal and stockpiling of topsoil from the proposed pit and operating areas. There is no overburden to be removed in any area. The area to be mined is a limestone outcropping and is the desired mineral.

Mining operations begin with the drilling of blast holes with an air track type drill. The blast holes will be loaded and the material blasted with a mixture of ammonium nitrate and fuel oil.

Once blasted, the material will be transported and fed to a crushing a screening plant through the use of a front end loader. The crushing and screening plant typically would consist of a jaw crusher, a double deck screen, a cone crusher, and various conveyors. Finished product stockpiles would be formed through the use of a radial stacker. Since only one principal product is desired, only one stockpile with appreciable volumes would be created.

Note that crushing screening operations are completed by a separate contractor. Actual crushing equipment may vary slightly depending on the contractor selected.

From the stockpile, material would be removed and loaded into haul trucks through the use of a front end loader.

There will be no acid forming materials created by operations or present on site.

5.0 Affected Areas

All operations conducted by BR for the Travertine #1 mine will affect areas previously mined or otherwise disturbed, and disturb new areas. Minor mining activity previously occurred at the Travertine #1 mine by previous operators. Evidence of the prior mining activities is shown in the aerial photograph included in Appendix B. BR proposes to expand the area previously mined and use the same access roads and utility road as existed prior to BR operations.

The pit area is an area which was previously disturbed, but which will be re-disturbed and expanded by BR. The expansion is necessary to mine material to the final pit limits. The total proposed pit area is 4.39 acres.

The operations area is the area where material processing will occur, products will be stored in stockpiles, and equipment will be operated to load haul trucks. The operation area is also the area where the topsoil and ore stockpiles are located. This operations area has been topsoiled and the topsoil has been stockpiled for replacement over the area. The access road passes through this operations area. The total area of the operations area is 3.27 acres, of which 0.14 acres (estimated 12 foot width) is the access road which existed prior to BR operations. Therefore, the operations area disturbed or re-disturbed by BR operations is 3.13 acres (3.27 - 0.14).

The access road is a road previously existing to BR operations. The access road is described in Section 2.0. Improvements to the road consists of placing road base material on the surface to minimize dust during dry conditions and to minimize muddiness during wet conditions. No other modifications will be made to the road. The total area of the access road which is used by BR operations is 2.56 acres (estimated 12 foot width, excluding portion which passes through the operations area).

In addition to the final pit area, a utility road on the southwest area of the operations and pit area will be used for equipment access to the pit and processing equipment. This road was previously existing to BR operations, and used extensively for fire fighting activities in 1996. Evidence of the prior existence of this road is shown in the aerial photograph included in Appendix B. The topsoil in the utility road does not require removal since no material will be mined from the area. However, this area is proposed to be revegetated, including ripping. The utility road is shown in Plate 1. The total area of this access road is 0.11 acres.

The following table summarizes the proposed areas to be affected by BR operations, and the areas proposed for reclamation.

Table 5.1
Affected/Reclaimed Areas

Feature	Affected Area (acres)	Topsoil Available and Removed?	Area Proposed for Reclamation/Revegetation (acres)
Pit	4.39	Yes	4.39
Operations Area (including stockpiles)	3.13	Yes	3.13
Access (Haul) Roads (includes portion which passes through operation area)	2.71	No	0
Utility Roads	0.11	No	0.11
Totals	10.34		7.63

6.0 Soils

6.1 Type of Soil

The soil types has been characterized by the Soil Conservation Service as types: LdE - Lodar-Rock outcrop complex, 3 to 30 percent slopes, and; LdF - Lodar-Rock outcrop complex, 30 - 70 percent slopes. Complete text describing the soil, and an aerial photograph of the area showing the location of the soil types, is included in included in Appendix B.

6.2 Plan for Protecting and Redepositing Topsoil

The only soils to be affected by operations are those in the pit and operations areas. These top soils are to be removed from a stockpile for future replacement in the these areas.

The topsoil thickness over the pit and operation areas is estimated at 2 to 3 inches thick. The topsoil has already been removed and stockpiled through the use of a dozer and a front end loader. The total volume of topsoil to be stockpiled and re-deposited is estimated at 2500 tons (2300 yds^3).

7.0 Vegetation

7.1 Existing Vegetation

Existing vegetation surrounding the Travertine #1 Mine varies. Areas to the north and east were recently burned by wildfire in 1996. Areas to the south and southwest were not burned by the wildfire.

The BLM has conducted a re-seeding program of burned areas which were damaged by the massive fire in 1996. It is not clear if re-seeding was actually completed in areas immediately adjacent to the Travertine #1 mine, however, very good establishment of vegetation in the burned areas is evident. However, since these recently burned areas are not considered representative of vegetation that existed prior to disturbance of mining operations, BR is proposing to re-establish vegetation to a level of ground cover consistent with areas surrounding the pit which were not damaged by the wildfire.

The area identified as representative of pre-mining vegetation is immediately adjacent to the pit and operations area to the southwest. Plate 1 identifies this particular area. The vegetation in this area consists of some mosses which are only expected to be evident in the springtime, dense sage, cryptogam, scattered junipers, and some grasses. The area had a pre-mining use of grazing. It is believed that the grazing has depleted existing vegetative cover, particularly grasses, considerably. The total estimated ground cover in this representative area is estimated to range from 25-45%, with an average of 35%.

7.2 Plan for Re-establishing Vegetation

All re-depositing of top soils and revegetation activities will be conducted in the first spring following cessation of activities at the Travertine #1 mine.

A seed mix will be applied to the areas through the use of a seed drill or hand broadcasting. The following seed mix is proposed:

Table 7.1
Proposed Seed Mix

Common Name	Rate (lbs/acre)
Hycrest crested wheat grass	1.0
Intermediate wheatgrass	2.0
Western wheatgrass	2.0
Indian ricegrass	2.5
Palmer penstemon	0.5
Ladlac alfalpha	1.0
Yellow sweetclover	0.5
Scarlet globemallow	0.5
4-wing saltbrush	1.0
Shadscale	1.0
Rubber rabbitbrush	0.5
Forage kochia	0.5
Total	13.0

Revegetation will be re-established by first spreading topsoil over areas from which it was removed, applying a manure mulch at a rate of four to five tons per acre, ripping, then hand broadcasting the seed mix. It is estimated that ripping can be completed to a depth of 18 inches because much of the material underlying the topsoil will be loose from regrading as well as naturally occurring.

The proposed seed mix was recommended for the Travertine #1 mine by the Division of Oil Gas and Mining. Other seed mixes may be used upon recommendation by the BLM or the Division of Oil, Gas and Mining.

7.3 Vegetation Success Determination

Vegetation success is achieved when re-established vegetation is at least 70% of the pre-disturbed vegetation. Due to previous mining activities at the property and outcropping of limestone, vegetation did not exist over all areas. However, BR is proposing that revegetation is

considered successful when 70% ground cover is achieved based on comparison with the representative area described in Section 7.1. Successful revegetation is achieved when 25% (70% X 35%) ground cover is achieved over all reclaimed areas.

8.0 Depth to Groundwater, Geologic Setting

There is no data which provides an estimated depth to groundwater. There is no acid forming materials that will be created or used at the site. The only deleterious material to be used on the site is diesel fuel, which is stored in a tank placed in a lined pit. No impacts to groundwater are expected.

The geologic setting consist of predominant steep limestone outcropping. Clay seams separate various layers of limestone.

9.0 Proposed Location of Stockpiles

Only two stockpiles of appreciable amounts are to be located on site. One of these stockpiles will be a topsoil stockpile. The other stockpile will be the principal product, crushed limestone. The maximum area to be covered by all stockpiles combined will be within the operations area and would cover approximately one half acre.

10.0 Operation Practices

BR is not proposing any variances from operation practices listed in R647-4-107.

One small tank is used to provide diesel fuel to the crushing plant and for refueling of equipment. The area around the tank is bermed and lined to minimize impacts of any potential spills. A water storage tank is also present on the site.

11.0 Hole Plugging

There will be no exploratory drill holes or blast holes left on site to be plugged.

12.0 Impact Statement

12.1 Surface and Groundwater System Impacts

There is no data on groundwater elevations surrounding the Travertine #1 mine. However, there is no acid forming materials stored or formed at the site. The diesel fuel storage tank is surrounded by a bermed and lined pit. Observations on site and surrounding areas indicate that

storm water does not tend to pond because of the porosity of the soils and limestone outcroppings.

A storm water permit will be obtained from the Utah Division of Water Quality.

12.2 Wildlife Habitat and Endangered Species Impacts

There is minimal wildlife in the area. Mule deer, jack rabbits, and cotton tail rabbits exists in limited numbers in the area. There are no known threatened or endangered species in the area. The proposed BR operations are not expected to impact wildlife in any manner.

12.3 Existing Soil and Plant Resource Impacts

All top soils in the operations and pit area are to stockpiled and re-distributed. Soils outside of the disturbed areas would not be impacted by the BR operations.

There will be no permanent impacts to vegetation from the proposed operations. Revegetation will be re-established in the operations and pit area as described in Section 7.0. There are no plant resources outside of disturbed areas which will be affected by BR operations. There are no known threatened or endangered plant species in the area.

12.4 Impacts to Slope Stability, Erosion Control, Air Quality, Public Health and Safety

BR is proposing to regrade all slopes in the mining and operations area. The slopes are to be regraded to an approximate slope of 3:1 where possible to minimize the potential of erosion. There will be no highwalls left on site.

Air emissions from the operation are minimal due to the size and production of the operation. Processing operations are subject to permitting requirements by the Utah Division of Air Quality. Contractors which perform the processing operations are required by BR resources to have obtained the necessary air quality permits.

Public health and safety concerns are minimal. The total depth of the pit is very small with highwalls at a maximum of approximately 15 feet. The highwalls are protected with berms to the north and stockpiles to the south which minimize potential of accidental vehicular access to the highwalls. Highwalls will not exist following cessation of operations.

13.0 Reclamation Plan

13.1 Current Land Use and Post-mining Use

Pre-mining use of the subject and surrounding areas consisted of grazing and recreation. Upon cessation of BR activities, and re-establishment of vegetation, continuation of these activities would be available.

13.2 Reclamation of Roads, Highwalls, and Slopes

The utility road southwest of the pit and operations area is proposed for revegetation. Revegetation activities will consist of revegetating as described in Section 7.2.

The access road (the old county road) is not proposed for reclamation. This road existed prior to BR operations. Continued use of the road following BR operations is expected to continue for grazing purposes, recreational use, and for potential fire fighting activities.

There will be no highwalls left on site. The mining will consist of removing a limestone knob to a level consistent with existing terrain.

All slopes will be regraded to a slope of approximately 3:1 where possible. This slope approximates natural terrain up slope from operations, and is flatter than natural terrain down slope of operations. The proposed slope will minimize erosion potential, maximizing revegetation success.

There will be no post-mining water impoundments, leach pads, pits, or dumps for reclamation.

Proposed reclaimed slopes and revegetated areas are shown in Plate 2.

13.3 Removal of Surface Facilities

There will be no surface facilities left on site. All processing equipment and mining equipment will be removed from the site.

13.4 Revegetation Program and Topsoil Distribution

The proposed revegetation plan is described in detail in Section 7.2.

Dozer travel direction will take place parallel to surface contour to further minimize erosion potential.

No fertilization is proposed.

14.0 Surety

14.1 Gates and Signs

The mining plan consist of removal of a limestone outcropping. Highwalls are of minimal height during operations, and will not exist upon cessation of activities. Therefore no gates and/or signs are necessary.

14.2 Regrading - Loose Material

Nearly all loose material generated from operations will be sold. There is no reject material to be stockpiled. It is estimated that up to 500 yds of loose material will be available for regrading and used to form 3:1 or flatter slopes, where possible. The regrading of material would be completed with a dozer. All pushes would be less than 50'. The cost for regrading is estimated using the Means Construction Cost Data, reference 022-200-242-4000, at $0.98 per yard. Note that this method of cost estimating includes an operator.

14.3 Distribution of Topsoil

Topsoil will removed from the topsoil stockpile and redistributed over the mined area and the portion of the operations area to be reclaimed (excluding access road). The topsoil distribution would be completed with a dozer, assumed to be a Caterpillar D8. The average push distance is estimated at 200'. The volume of topsoil to be redistributed is estimated at 2500 tons (2300 yds^3). The cost of topsoil distribution is estimated using Caterpillar Blue Book Rental Rates, April 1997, and Means Construction Cost Data for operator cost, crew B-10-B. The estimated cost is $0.84/$yd^3$.

14.4 Mulch

Manure will be used as a mulch and to provide organic material. The manure will be applied at a rate of 4-5 tons per acre. The cost of manure is estimated to be negligible and expected to be available in nearby Leamington. It is estimated that the total cost for the manure and application will be $30 per acre.

14.5 Seeding

Seeding will be completed using hand broadcasting. The total cost for the seed mix described in Section 7.2 is estimated at $105 per acre. The seed mix may be hand broadcast at a rate of 1 acre per hour, at a cost of $30 dollars per hour. The total cost is estimated at $135 per acre.

14.6 Ripping

Ripping of seeded areas will be completed with a dozer. For surety estimates, it is assumed that ripping will be completed with Caterpillar D8. Using estimating parameters contained in Section 14.2, with an estimated ripping depth rubble at a depth of 18", at a rate of 1 mile per hour, the cost of ripping is estimated at $224 per acre.

14.7 Dozer Mobilization

The only site equipment to be mobilized, which is not otherwise included in the unit cost, is the Caterpillar D8 dozer used for topsoil redistribution, regrading, and ripping. The dozer is expected to available in nearby Nephi. A mobilization (including demob) cost of equipment is estimated at $500.

14.8 Site Clean-up

Equipment removal. Equipment used for operations include an air track drill, a front end loader, and a crushing screening plant. For surety calculations, it is estimated that this equipment would have a salvage value equal to the disposal cost. No scrap iron value and no disposal fee is included in the surety estimates. The receiving scrap yard is assumed to be located in Nephi, with a round trip travel and unload time of 1 ½ hours. The load time for each trip is estimated at 1 hour. The total time needed for each vehicle trip is 2 ½ hours. The use of a flat bed tractor trailer with operator is estimated at $40 per hour A front end loader would be used to load all scrap equipment and all equipment left on site could be loaded and hauled in two working days. Supervision could be completed by the front end loader operator. This same loader with supervisor would be used for general debris clean-up during slack periods.

The air track and a front end loader would each take one trip (2 trips total), for a total of 5 hours.

The crushing/screening operations are conducted by a contractor. Exact plant layouts could vary. However, a typical plant layout consists of: generator/operator shack (1 trip); a cone crusher (1 trip); a jaw crusher (1 trip); a screening plant (1 trip); six conveyors/radial stackers (2 trips), a water storage tank and a diesel fuel storage tank (1 trip); and a feeder/hopper (1 trip). The total effort needed to remove the crushing/screening plant is eight trips or 20 hours.

General site clean-up. All trash and general debris will be removed from the site. This site clean-up can be completed by supervised labor and a front end loader. It is estimated that site clean-up can be completed within one work day, and the laborers could be supervised by the loader operator. The loader with supervisor would be the same as that used for equipment loading and could complete general site clean-up during periods when a truck is not available to load. The labor cost is estimated at $30 per hour, and that two laborers could complete the clean-up in two working days.

14.9 Loader Operation

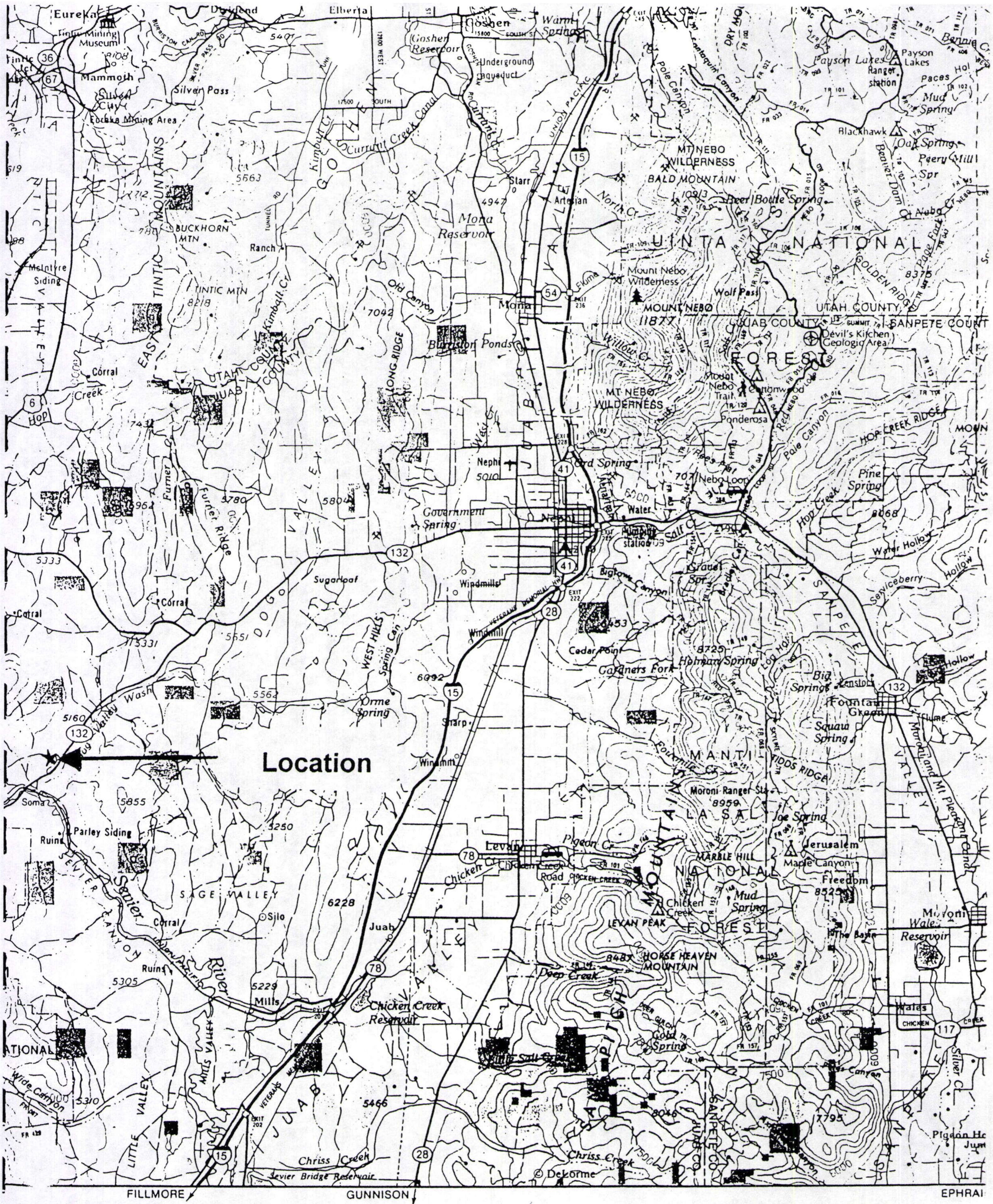
A loader may be used for general site clean-up and for equipment/scrap loading. The loader may also be used to assist in topsoil redistribution. It is estimated that all work needed to be completed with a loader could be done in two days. Loader costs are based on Means Construction Handbook. The method of estimating included operator costs, and mobilization, at a cost of $897.50 per day.

14.10 Total Surety Estimate

Calculation for total surety is included in detail in Table 14.1. All calculations are made assuming a third party contractor performs the necessary work. References for the cost of each line item are provided.

TABLE 14.1
BR SURETY ESTIMATES

Item	Subgroup	1996 Reference	1998 Unit Cost	Cost Unit per	Variable 1	Variable 1 Units	1998 Cost
Regrading	Pit and operation areas	Means, 022-200-242-4000	$0.98	yd3	500	yds	$490
Topsoil distribution	Pit and operation areas	NOI Section 14.3	$0.84	yd3	2300	acre	$1,932
Ripping	Pit, operation area, and utility road	NOI Section 14.6	$224.00	acre	7.63	acre	$1,709
Mulch	Pit, operation area, and utility road	NOI Section 14.4	$30.00	acre	7.63	acre	$229
Seeding	Seeding (seed cost plus application)	NOI Section 14.5	$135.00	acre	7.63	acres	$1,030
Cleanup	General Site Cleanup	NOI Section 14.8	$30.00	hour	32	Hours	$960
	Equipment Salvage Trucking	NOI Section 14.8	$40.00	hour	25	hours	$1,000
	FEL with Supervisor	Means, 016-400-408-4760	$897.50	day	2	days	$1,795
Dozer Mobilization (demob included)	Miscellaneous Supervision	NOI Section 14.6	$500.00	lump			$500
Escalation estimated for a five year period at a rate of 2.24%						Subtotal	$9,645
						Add 10% cont	$10,610
						Escalation	$11,852
						Rounded	$11,900



Scale 1:250,000
1 inch represents 4 miles

Contour interval
300 feet (91.5 meters)

Continue on Page

Appendix B

Soils, Geology, Aerial Photograph

UTAH — PARTS OF JUAB, SANPET AND UTAH COUNTIES — SHEET MBER 97

1 2 MILES

1 2 KILOMETERS

SCALE 1:24000

SOIL LEGEND

The first letter, always a capital, is the initial letter of the soil name. The second letter is a capital if the mapping unit is broadly defined; otherwise it is a small letter. The third letter, always a capital A, B, C, D, E, or F, shows the slope. Slope letters are omitted from the symbol on broadly defined units, miscellaneous areas and on nearly level mapping units. A numeral 2 is used following the slope designation on those mapping units that are eroded. The letter P is used following the slope designation on those mapping units that are hummocky as a result of wind action.

SYMBOL	NAME
AaF	Agassiz very stony loam, 30 to 70 percent slopes
AbF	Agassiz Rock outcrop complex, 30 to 70 percent slopes
AcE	Amsoft Rock outcrop complex, 8 to 30 percent slopes
AcF	Amsoft Rock outcrop complex, 30 to 70 percent slopes
AdE	Amsoft, moist Rock outcrop complex, 8 to 30 percent slopes
AdF	Amsoft, moist Rock outcrop complex, 30 to 70 percent slopes
AeO	Ant Flat loam, 8 to 15 percent slopes
AF	Aquic Ustifluvents, saline
AG	Argic Pachic Cryoborolls, rolling
AhA*	Ashdown loam, 0 to 2 percent slopes
AhB*	Ashdown loam, 2 to 4 percent slopes
AkA*	Ashdown loam, moist, 0 to 2 percent slopes
AkB*	Ashdown loam, moist, 2 to 4 percent slopes
AmE	Atepic shaly loam, 10 to 40 percent slopes
BA	Beaches
Bb	Benjamin silty clay loam
Bc	Benjamin silty clay loam, moderately saline-alkali
BdD	Bezzant gravelly loam, 6 to 30 percent slopes
BdF	Bezzant gravelly loam, 30 to 60 percent slopes
BeD	Bezzant gravelly loam, dry, 5 to 30 percent slopes
BeF	Bezzant gravelly loam, dry, 30 to 60 percent slopes
Bf*	Birdow loam
BgC	Borvant cobbly loam, 2 to 8 percent slopes
BgD	Borvant cobbly loam, 8 to 25 percent slopes
BhD	Borvant Reywat complex, 8 to 30 percent slopes
BhF	Borvant Reywat complex, 30 to 60 percent slopes
BkF	Borvant Sandall complex, 8 to 60 percent slopes
Bm	Bramwell silt loam
BnD	Broadhead Loam, 3 to 25 percent slopes
BnF	Broadhead loam, 25 to 70 percent slopes
CaB*	Cahla loam, 2 to 4 percent slopes
CaC*	Cahla loam, 4 to 8 percent slopes
CaD	Cahla loam, 8 to 15 percent slopes
CbF	Calnec Agassiz complex, 30 to 70 percent slopes
CcF	Calnec Lundy complex, 30 to 70 percent slopes
CdE	Checkert, moist Rock outcrop complex, 8 to 40 percent slopes
Ce*	Cheebe fine sandy loam
Cf	Cheebe silty clay loam
CG	Cumulic Haploxerolls, sloping
DaC*	Dagor loam, 2 to 8 percent slopes
DhD	Deer Creek cobbly loam, 6 to 25 percent slopes
	Deer Creek-Borvant complex, 2 to 25 percent slopes
	Donnardo stony loam, 2 to 8 percent slopes
	Donnardo stony loam, 8 to 25 percent slopes
	Donnardo stony loam, 25 to 40 percent slopes
	Donnardo Mike Peak complex, 25 to 40 percent slopes
Doa-	Doyce loam, 2 to 4 percent slopes
DtC	Doyce loam, 4 to 8 percent slopes
DgC*	Doyce silt loam, loamy substratum, 2 to 4 percent slopes
DhD	Dry Creek cobbly loam, 4 to 15 percent slopes
DkD	Dry Creek Reebok complex, 4 to 15 percent slopes
Dm	Duggins loam
DN	Dune land
FaB	Firmage gravelly loam, dry, 2 to 4 percent slopes
FbF	Flygare loam, 30 to 70 percent slopes
FcF	Flygare Parkay Rock outcrop complex, 30 to 70 percent slopes
FdF	Flygare Starley association, very steep
FeD	Fontreen stony loam, 3 to 25 percent slopes
FeF	Fontreen stony loam, 25 to 60 percent slopes
FfD	Fontreen Borvant complex, 2 to 25 percent slopes
FgB*	Freedom silt loam, 0 to 2 percent slopes
FgC*	Freedom silt loam, 2 to 5 percent slopes
FhB	Fridle loam, 2 to 4 percent slopes
GaAP*	Genola fine sandy loam, hummocky
GbA*	Genola silt loam, 0 to 1 percent slopes
GbB*	Genola silt loam, 1 to 2 percent slopes
GbC*	Genola silt loam, 2 to 5 percent slopes
GcA*	Genola silt loam, moist, 0 to 1 percent slopes
GcB*	Genola silt loam, moist, 1 to2 percent slopes
GcC*	Genola silt loam, moist 2 to 5 percent slopes
GdDP	Goldrun loamy fine sand, 0 to 10 percent slopes, hummocky
GeD	Goldrun Cheebe complex, 0 to 10 percent slopes
GfD	Goldrun Medburn complex, 0 to 10 percent slopes
GgE	Goldrun Rock outcrop complex, 0 to 10 percent slopes
HaF	Hamlan loam, 30 to 70 percent slopes
HbA	Hansel silt loam, 0 to 2 percent slopes
HbB	Hansel silt loam, 2 to 4 percent slopes
Hc	Harding silt loam
HeC	Hike Peak stony sandy loam, 4 to 8 percent slopes
HdD	Hike Peak stony sandy loam, 8 to 15 percent slopes
HdE	Hike peak stony sandy loam, 15 to 25 percent slopes
HeC	Hillfield silt loam, 2 to 5 percent slopes
HfC	Hupp gravelly loam, 4 to 8 percent slopes
HfD	Hupp gravelly loam, 8 to 15 percent slopes
JaD	Jericho gravelly fine sandy loam, 4 to 15 percent slopes
Jba*	Juab loam, 0 to 2 percent slopes
JbB*	Juab loam, 2 to 4 percent slopes
Jbf*	Juab loam, gravelly substratum, 2 to 4 percent slopes
JcC*	Juab loam, gravelly substratum, 4 to 8 percent slopes
JdC*	Juab complex, 4 to 8 percent slopes
JeD	Justesen loam, 4 to 15 percent slopes
KaB*	Kingsley silt loam, dry, 0 to 2 percent slopes
Kb*	Kirkham silt loam
Krf	Kirkham Rock outcrop complex, 30 to 70 percent slopes
LaA*	Lanyon very fine sandy loam, 0 to 1 percent slopes
LaB*	Lanyon very fine sandy loam, 1 to 2 percent slopes
L	Lanyon very fine sandy loam, 2 to 5 percent slopes
	Lanyon very fine sandy loam, 5 to 10 percent slopes, eroded
	Lezzant very cobbly loam, 8 to 30 percent slopes
	Lezzant very cobbly loam, 30 to 60 percent slopes
	Lezzant very cobbly loam, dry, 30 to 60 percent slopes
LcE	Lodar Rock outcrop complex, 3 to 30 percent slopes
LdF	Lodar Rock outcrop complex, 30 to 70 percent slopes
LeF	Lundy Rock outcrop complex, 30 to 70 percent slopes

SYMBOL	NAME
MaB	Manassa silt loam, 0 to 2 percent slopes
MbC2	Manassa silt loam, 2 to 5 percent slopes, eroded
McB	Manassa silt loam, moderately saline, 0 to 2 percent slopes
MdB	Manassa Mellor silt loam, 0 to 2 percent slopes
MeC	Mannis loam, 4 to 8 percent slopes
MeD	Mannis loam, 8 to 15 percent slopes
MfA*	Medburn fine sandy loam, 0 to 2 percent slopes
MfB*	Medburn fine sandy loam, 2 to 4 percent slopes
Mg	Mellor silt loam
Mh	Mellor silt loam, wet
MkC	Modoc fine sandy loam, cool, 4 to 8 percent slopes
Mm*	Morom silty clay loam
MnF	Mortenson silt loam, 40 to 70 percent slopes
MoC	Mountainville very stony sandy loam, 3 to 10 percent slopes
MoB	Mountainville gravelly loam, sandy substratum, 2 to 4 percent slopes
MrB	Mountainville, sandy substratum-Doyce complex, 2 to 4 percent slopes
MsD	Mower clay loam, 5 to 15 percent slopes
MtF	Mower Rock outcrop complex, 30 to 50 percent slopes
MuB*	Musinia silt loam, 0 to 2 percent slopes
MuC*	Musinia silt loam, 2 to 5 percent slopes
MvB*	Musinia silty clay loam, moist, 0 to 2 percent slopes
MvC*	Musinia silty clay loam, moist, 2 to 5 percent slopes
NaB	Nephi silt loam
OaD	Orchy gravelly fine sandy loam, 4 to 15 percent slopes
OaE	Orchy gravelly fine sandy loam, 15 to 40 percent slopes
PA	Pachic Calcixerolls, very steep
PB	Pachic Haploxerolls, steep
PC	Pachic Cryoborolls, sloping
PD	Pachic Cryoborolls, north slopes
PeD	Parkay Rock outcrop complex, 8 to 30 percent slopes
PeF	Parkay Rock outcrop complex, 30 to 70 percent slopes
PfA*	Parleys loam, 0 to 2 percent slopes
PfB*	Parleys loam, 2 to 4 percent slopes
PfC*	Parleys loam, 4 to 8 percent slopes
PgC	Pharo very stony loam, 3 to 10 percent slopes
PhD	Pibler gravelly fine sandy loam, 4 to 15 percent slopes
PK	Pits Dumps complex
PmD	Pober fine sandy loam, 4 to 15 percent slopes
PnD	Pober-Pibler complex, 4 to 15 percent slopes
Po	Provo Bay silt loam
Pp	Provo Bay-Cheebe complex
RaD	Reebok cobbly loam, 4 to 15 percent slopes
RaE	Reebok cobbly loam, 15 to 40 percent slopes
RbC	Renal stony fine sandy loam, 4 to 8 percent slopes
RcD	Renal-Reebok complex, 4 to 15 percent slopes
RdE	Reywat-Reebok Rock outcrop complex, 10 to 30 percent slopes
ReE	Reywat Rock outcrop complex, 10 to 30 percent slopes
ReF	Reywat Rock outcrop complex, 30 to 60 percent slopes
RF	Rock outcrop
RgF	Rock outcrop-Amsoft complex, 30 to 70 percent slopes
RhF	Rock outcrop-Lodar complex, 30 to 70 percent slopes
RkF	Rock outcrop-Lundy complex, 30 to 70 percent slopes
RmF	Rock outcrop-Saxby complex, 30 to 70 percent slopes
RnF	Rock outcrop-Sheep Creek complex, 30 to 70 percent slopes
RoD	Rohrs gravelly clay loam, 4 to 15 percent slopes
Rr	Rosha Sorrings silt loam
RS	Rubble land
Sa	Saltair silty loam
SbF	Sandall very cobbly loam, 25 to 60 percent slopes
ScD	Sanpete gravelly fine sandy loam, 4 to 15 percent slopes
ScF	Sanpete gravelly fine sandy loam, 15 to 40 percent slopes
SdE	Saxby Rock outcrop complex, 10 to 30 percent slopes
SdF	Saxby Rock outcrop complex, 30 to 70 percent slopes
SeB	Saxby, moist-Rock outcrop complex, 10 to 30 percent slopes
SeF	Saxby, moist Rock outcrop complex, 30 to 70 percent slopes
SfC	Shabliss very fine sandy loam, 2 to 5 percent slopes
SfD	Shabliss very fine sandy loam, 5 to 15 percent slopes
SfE	Shabliss very fine sandy loam, 15 to 30 percent slopes
SgC	Shabliss very fine sandy loam, moist, 2 to 5 percent slopes
ShE	Sheep Creek very cobbly loam, 10 to 30 percent slopes
ShF	Sheep Creek very cobbly loam, 30 to 70 percent slopes
SkF	Sheep Creek very cobbly loam, dry, 30 to 70 percent slopes
SmE	Sheep Creek-Flygare complex, 8 to 30 percent slopes
SN	Stickens
SoD	Scager gravelly loam, 4 to 15 percent slopes
SpE	Starley Rock outcrop complex, 8 to 30 percent slopes
SpF	Starley-Rock outcrop complex, 30 to 70 percent slopes
SrE	Sumine very cobbly loam, 10 to 30 percent slopes
SsE	Sumine-Reywat Rock outcrop complex, 10 to 30 percent slopes
SsF	Sumine-Reywat Rock outcrop complex, 30 to 60 percent slopes
TaA*	Taylorsville silt loam, 0 to 2 percent slopes
TaB*	Taylorsville silt loam, 2 to 4 percent slopes
TaC	Taylorsville silt loam, 4 to 8 percent slopes
TbB	Thokol silt loam, dry, 0 to 2 percent slopes
TcC*	Thokol-Lanyon complex, 0 to 5 percent slopes
TdB	Truesdale fine sandy loam, 2 to 4 percent slopes
TE	Typic Cryoborolls, moderately sloping
TF	Typic Haploborolls, steep
WaB*	Wales loam, 2 to 4 percent slopes
WbB*	Wales loam, dry, 2 to 4 percent slopes
WcF	Wallsburg Rock outcrop complex, 25 to 70 percent slopes
WdE	Wallsburg-Yeates Hollow complex, 25 to 40 percent slopes
WdF	Wallsburg-Yeates Hollow complex, 40 to 70 percent slopes
W	Water
We	Woodrow loamy fine sand
WfA*	Woodrow silt loam, 0 to 1 percent slopes
WfB*	Woodrow silt loam, 1 to 2 percent slopes
WfC*	Woodrow silt loam, 2 to 5 percent slopes
XA	Xeralfic Torriorthents, steep
XB	Xeric Torriorthents-Rock outcrop complex, steep
YaC	Yeates Hollow stony loam, 6 to 10 percent slopes
YaD	Yeates Hollow very stony loam, 10 to 25 percent slopes
YaD	Yeates Hollow very stony loam, 10 to 25 percent slopes
YaE	Yeates Hollow very stony loam, 25 to 40 percent slopes
YbF	Yeates Hollow very stony loam, 40 to 70 percent north slopes

* Indicates mapping units that are considered prime farm land in Utah. These soils are all irrigated.

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the mean annual air temperature is 41 to 45 degrees F, and the average freeze-free season is 70 to 110 days.

Typically, the surface layer is brown cobbly loam about 9 inches thick. Below this to a depth of 60 inches or more is very strongly calcareous, pale brown very cobbly loam.

Included in this unit are about 5 percent Rock outcrop and 5 percent Bezzant gravelly loam, 6 to 30 percent slopes; 5 percent Lizzant very cobbly loam, 30 to 60 percent slopes; and 2 percent Lodar very cobbly loam, 3 to 30 percent slopes, on hillsides. Borvant cobbly loam, 8 to 25 percent slopes, on alluvial fans, also makes up 5 percent of the unit. The percentage of these inclusions varies from one area to another.

Permeability of this Lizzant soil is moderate. Available water capacity is about 5.5 to 7 inches. Water supplying capacity is 8 to 10 inches. Effective rooting depth is 60 inches or more. The organic matter content of the surface layer is 2 to 5 percent. Runoff is medium, and the hazard of water erosion is slight.

This unit is used as rangeland and for wildlife habitat.

The potential plant community on this soil is about 65 percent perennial grasses, 15 percent forbs, and 20 percent shrubs. Important plant species are bluebunch wheatgrass, black sagebrush, antelope bitterbrush, and Indian ricegrass. The normal expected yield of total air-dried herbage is about 900 pounds per acre.

Slope limits access by livestock and results in overgrazing of the less sloping areas.

This unit is very poorly suited to range seeding. The main limitations of the soil are slope and the content of rock fragments.

This unit is poorly suited to recreational uses and homesite development. The main limitations are stoniness and slope.

This map unit is in capability unit VIIs-UX, nonirrigated. The range site is Upland Stony Loam.

LdE—Lodar-Rock outcrop complex, 3 to 30 percent slopes. This map unit is on hillsides. Slopes are long and convex. In most areas the present vegetation is mainly grasses and shrubs. Elevation is 4,800 to 6,400 feet. The average annual precipitation is 12 to 14 inches, the mean annual air temperature is 45 to 52 degrees F, and the average freeze-free season is 100 to 140 days.

This unit is about 60 percent Lodar very cobbly loam, 3 to 30 percent slopes, and 20 percent Rock outcrop. The components of this unit are so intricately intermingled that it was not practical to map them separately at the scale used.

Included in this unit are about 10 percent Lodar very cobbly loam, 30 to 70 percent slopes, on hillsides, and 5 percent Borvant cobbly loam, 8 to 25 percent slopes, and 5 percent Donnardo stony loam, 8 to 25 percent slopes, on alluvial fans. The percentage of the included soils varies from one area to another.

The Lodar soil is shallow and somewhat exce drained. It formed in colluvium and residuum de dominantly from limestone. Typically, the surfac grayish brown very cobbly loam about 10 inche The underlying material is pale brown very ston about 5 inches thick. Limestone is at a depth of inches. Depth to limestone ranges from 10 to 2

Permeability of the Lodar soil is moderate. Av water capacity is about 1 inch to 1.5 inches. Wa supplying capacity is 2 to 4 inches. Effective roo depth is 10 to 20 inches. The organic matter co the surface layer is 2 to 5 percent. Runoff is me and the hazard of water erosion is slight.

Rock outcrop consists of exposures of barren mainly on escarpments and ridges.

This unit is used as rangeland and for wildlife

The potential plant community on the Lodar s about 65 percent perennial grasses, 10 percent and 25 percent shrubs. Important plant species bluebunch wheatgrass, black sagebrush, Nevad bluegrass, and Indian ricegrass. The normal exp yield of total air-dried herbage is about 650 pou acre.

Management practices needed to maintain or the vegetation include proper grazing use, prope seasonal use, good water distribution, and a pla grazing system. Dense stands of sagebrush ma as a result of continuous overgrazing. Brush management by prescribed burning or by chemi treatment and proper grazing use can improve deteriorated range if at least 15 percent of the c plants still remain.

This unit is poorly suited to range seeding. Th limitation is depth to rock.

This unit is poorly suited to recreational uses homesite development. The main limitations are stoniness, shallow depth to bedrock, and Rock

This map unit is in capability unit VIIs-U3, noni The range site is Upland Shallow loam.

LdF—Lodar-Rock outcrop complex, 30 to 7 percent slopes. This map unit is on hillsides. Sl long and convex. In most areas the present veg mainly grasses and shrubs. Elevation is 4,800 to feet. The average annual precipitation is 12 to 1 the mean annual air temperature is 45 to 52 deg and the average freeze-free season is 100 to 14

This unit is about 60 percent Lodar very cobbl 30 to 70 percent slopes, and 20 percent Rock o The components of this unit are so intricately intermingled that it was not practical to map ther separately at the scale used.

Included in this unit are about 10 percent Lod cobbly loam, 3 to 30 percent slopes, on hillsides percent Borvant cobbly loam, 8 to 25 percent sl and 5 percent Donnardo stony loam, 8 to 25 per

opes, on alluvial fans. The percentage of these cluded soils varies from one area to another.

The Lodar soil is shallow and somewhat excessively ained. It formed in colluvium and residuum derived ominantly from limestone. Typically, the surface layer is ayish brown very cobbly loam about 10 inches thick. he underlying material is pale brown very stony loam out 5 inches thick. Limestone is at a depth of 15 ches. Depth to limestone bedrock ranges from 10 to 0 inches.

Permeability of the Lodar soil is moderate. Available ater capacity is about 1 to 1.5 inches. Water supplying apacity is 2 to 4 inches. Effective rooting depth is 10 to 0 inches. The organic matter content of the surface yer is 1 to 4 percent. Runoff is medium, and the hazard f water erosion is slight.

Rock outcrop consists of exposures of barren bedrock, ainly on escarpments and ridges.

This unit is used as rangeland and for wildlife habitat.

The potential plant community on the Lodar soil is bout 65 percent perennial grasses, 10 percent forbs, nd 25 percent shrubs. Important plant species are luebunch wheatgrass, black sagebrush, Nevada uegrass, and Indian ricegrass. The normal expected ld of total air-dried herbage is about 650 pounds per re.

Because of the steepness of slope and the shallow pth of soil, grazing management practices are poorly ed to this unit.

is unit is poorly suited to recreational uses and mesite development. The main limitations are epness of slope, stoniness, shallow depth to bedrock, Rock outcrop.

his map unit is in capability unit VIIs-U3, nonirrigated. range site is Upland Shallow Loam.

eF—Lundy-Rock outcrop complex, 30 to 70 ent slopes. This map unit is on mountainsides and des. Slopes are long and convex. In most areas the ent vegetation is mainly grasses and shrubs. ation is 5,600 to 8,100 feet. The average annual cipitation is 14 to 18 inches, the mean annual air perature is 41 to 45 degrees F, and the average e-free season is 70 to 110 days.

is unit is about 60 percent Lundy very cobbly loam, 70 percent slopes, and 20 percent Rock outcrop. components of this unit are so intricately ingled that it was not practical to map them rately at the scale used.

uded in this unit are about 5 percent Atepic shaly 10 to 40 percent slopes; 5 percent Lizzant very y loam, 8 to 30 percent slopes; and 5 percent very cobbly loam, 30 to 70 percent slopes; on es. Borvant cobbly loam, 8 to 25 percent slopes, uvial fans, also makes up five percent of this unit. ercentage of these included soils varies from one o another.

The Lundy soil is shallow and somewhat excessively drained. It formed in colluvium and residuum derived dominantly from limestone and sandstone. Typically, the surface layer is dark brown very cobbly loam about 6 inches thick. The underlying material is pale brown and brown very cobbly loam about 13 inches thick. Limestone is at a depth of 19 inches. Depth to limestone ranges from 10 to 20 inches.

Permeability of the Lundy soil is moderate. Available water capacity is about 1 inch to 2 inches. Water supplying capacity is 2 to 4 inches. Effective rooting depth is 10 to 20 inches. The organic matter content of the surface layer is 1 to 3 percent. Runoff is medium, and the hazard of water erosion is slight.

Rock outcrop consists of exposures of barren bedrock, mainly on escarpments and ridges.

This unit is used as rangeland and for wildlife habitat (fig. 10).

The potential plant community on the Lundy soil is about 65 percent perennial grasses, 3 percent forbs, 7 percent shrubs, and 25 percent trees. Important plant species are bluebunch wheatgrass, Utah juniper, Indian ricegrass, and black sagebrush. The normal expected yield of total air-dried herbage is about 1,500 pounds per acre.

Because of the steepness of slopes and shallow depth to bedrock, grazing management practices are poorly suited to this unit.

This unit is poorly suited to recreational uses and homesite development. The main limitations are slope, stoniness, shallow depth to bedrock, and Rock outcrop.

This map unit is in capability unit VIIs-U3J, nonirrigated. The range site is Upland Shallow Loam (Juniper).

MaB—Manassa silt loam, 0 to 2 percent slopes. This very deep, well drained soil is on alluvial fans and lake terraces. The soil formed in alluvium and lake sediment derived dominantly from shale, limestone, and sandstone. Slopes are long and convex or concave. In most areas the present vegetation is mainly salt-tolerant grasses and shrubs. Elevation is 4,500 to 5,200 feet. The average annual precipitation is 8 to 12 inches, the mean annual air temperature is 45 to 52 degrees F, and the average freeze-free season is 100 to 140 days.

Typically, the surface layer is saline, pale brown silt loam about 15 inches thick. Below this to a depth of 60 inches or more is very strongly saline, very pale brown silty clay loam.

Included in this unit are about 5 percent Manassa silt loam, 2 to 5 percent slopes, eroded, on alluvial plains, and 5 percent Woodrow silt loam, 1 to 2 percent slopes, on lake plains. Three percent of the map unit is Mellor silt loam, 0 to 2 percent slopes, and 2 percent is Harding silt loam. Both soils are on lake terraces. The percentage of these included soils varies from one area to another.

Plates

Plate 1 - Affected Areas

Plate 2 - Reclaimed Areas

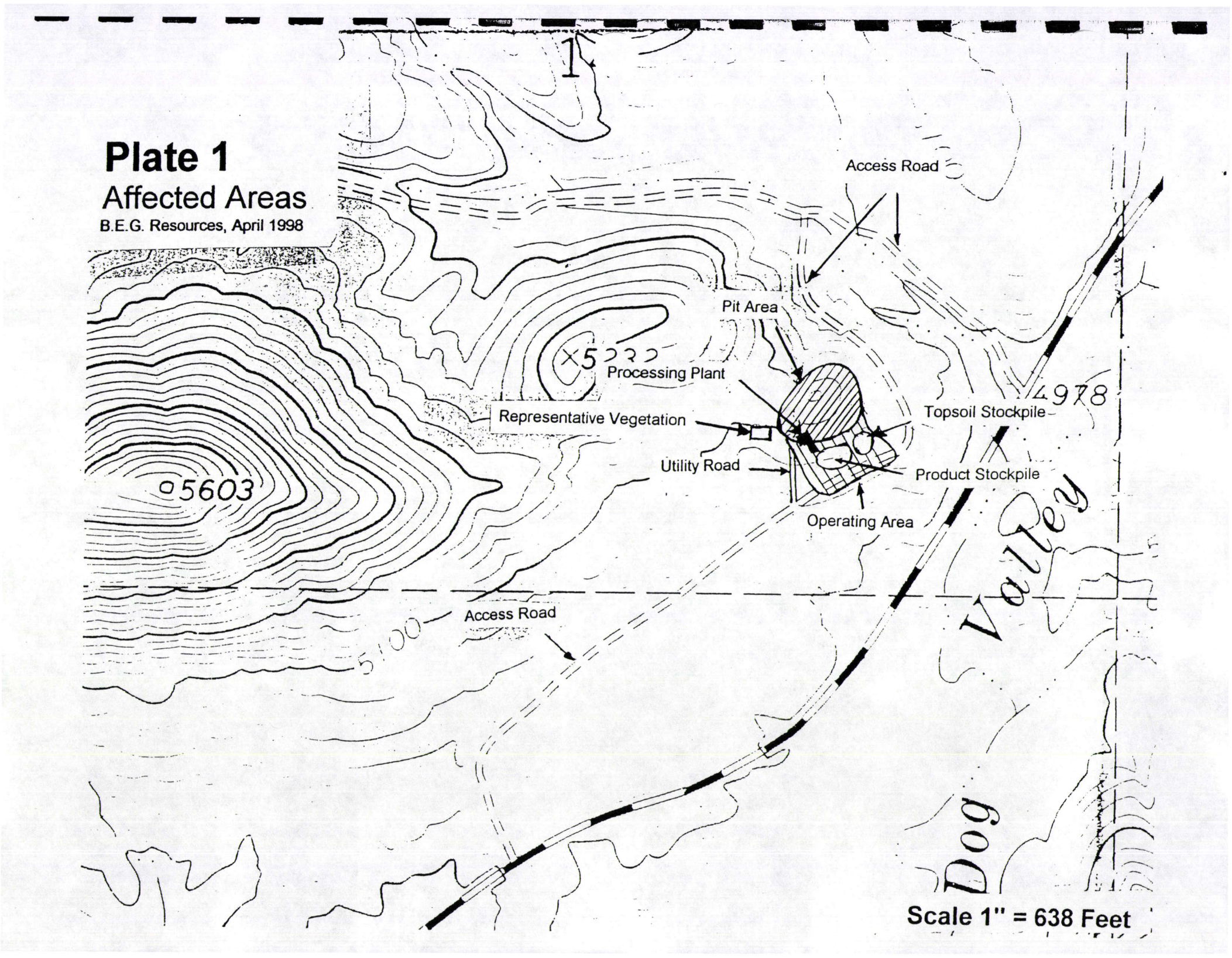
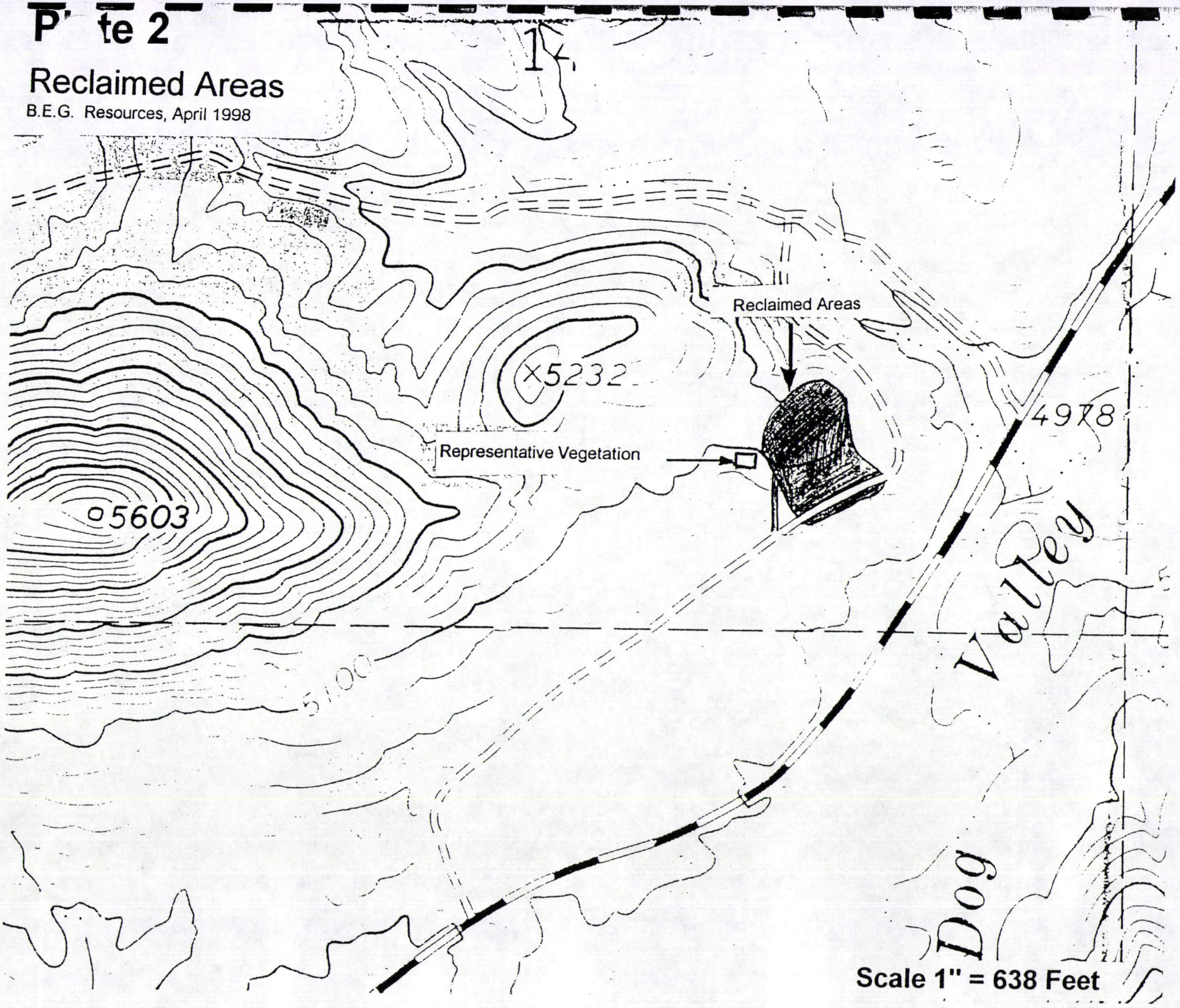


Plate 1
Affected Areas
B.E.G. Resources, April 1998
Access Road
Pit Area
Processing Plant
Representative Vegetation
Utility Road
Topsoil Stockpile
Product Stockpile
Operating Area
Access Road
5603
5100
4978
Dog Valley
Scale 1" = 638 Feet

P te 2

Reclaimed Areas

B.E.G. Resources, April 1998



Bureau of Land Management
Richfield District
Warm Springs/House Range Resource Areas
Fillmore, Utah

Cultural Resource Inventory of the proposed Dog Valley Limestone Quarry has been waived because of the following:

1. ___ Natural conditions are such, or previous natural ground disturbance has modified the surface so extensively that the chances of finding any evidence of cultural properties is negligible.

2. ___ Human activity within the last 50 years has created a new land surface to such an extent as to eradicate locatable traces of cultural properties.

3. ___ Existing Class II or comparable inventory data are sufficient to indicate that the specific environmental situation did not support human occupation or use to a degree that would make further inventory information useful or meaningful.

4. ✔ Inventory at the Class III level of intensity has previously been performed, and records adequately documenting the location, methods, results, and reliability of the inventory are available. *

5. ___ The nature of the proposed action is such that no impact or surface disturbance can be expected on cultural.

Erik Kreusch, Archaeologist
Warm Springs/ House Range Resource Areas

*** Note: see State Project # U-95-BL-0153b (Sage Valley Travertine Mine)**

THREATENED ENDANGERED AND SENSITIVE ANIMAL SPECIES

Date: May 7, 1998 Examiner: Mark Pierce

Project Name Dog Valley Limestone Quarry

Project Location T.14 S. R. 03 W. Section(s) 14

Elevation: 5200 Feet Geology :

Vegetative Type PJ/Sagebrush

Description of Field Work None

Reference Sources House Range ROD October 1987-WSRA ROD April 1987

General Comments The project will not adversely impact T&E or Sensitive species in the area

Threatened, Endangered or Sensitive Species: Yes_____ No X
(List if Yes)

Species Collected on Site

Species Observed on Site

Potential Impacts on Species From the Project None

Signature of Inspector

Threatened, Endangered & Sensitive Plant Clearance
House Range Resource Area

DATE: April 10, 1995 **EXAMINER:** Melanie Mendenhall mgm 5/27/98

PROJECT NAME: *Western States Lime Co. NOI- Travertine #1*

PROJECT LOCATION: T. 14 S., R. 3 W., Sec. 14 SW

ELEVATION: **GEOLOGY:**

RESOURCE AREA: House Range **VEGETATIVE TYPE:**

Description of Field Work: Literature search of the Fillmore BLM library and Richfield District information. On-the-ground survey.

Reference Sources: -Utah's Rare Plants Revisited (Great Basin Naturalist Vol.45, No.2)
-Plants From Millard County (BYU 1980)
-MX Final Report 1980
-1991 Habitat Survey, House Range R.A.
-others

General Comments:
The information available indicates that no threatened, endangered or sensitive plant species have been located in the proposed project area. I conducted an on-the-ground clearance on April 7, 1995. The area has been disturbed by historic mining and wild fires but no TES plants were found on the perimeter of the disturbance.

If any Special Status plant species are discovered during construction activities or the project life which may be affected or disturbed, all activities that may affect this resource will cease and notification will be made to the T&E specialist in the resource area.

Threatened, Endangered, or Sensitive Plants Yes___ No X

(List if Yes): _____

There is no new information since this clearance was done - therefore there would be no impact to TES plants mgm 5/27/98

***Plants Collected on Site:**
N/A

***Plants Observed on Site:**
Big sagebrush, juniper, cliffrose, rubber rabbitbrush, bottlebrush squirreltail, indian ricegrass, cheatgrass.

Melanie Mendenhall

Attachment B

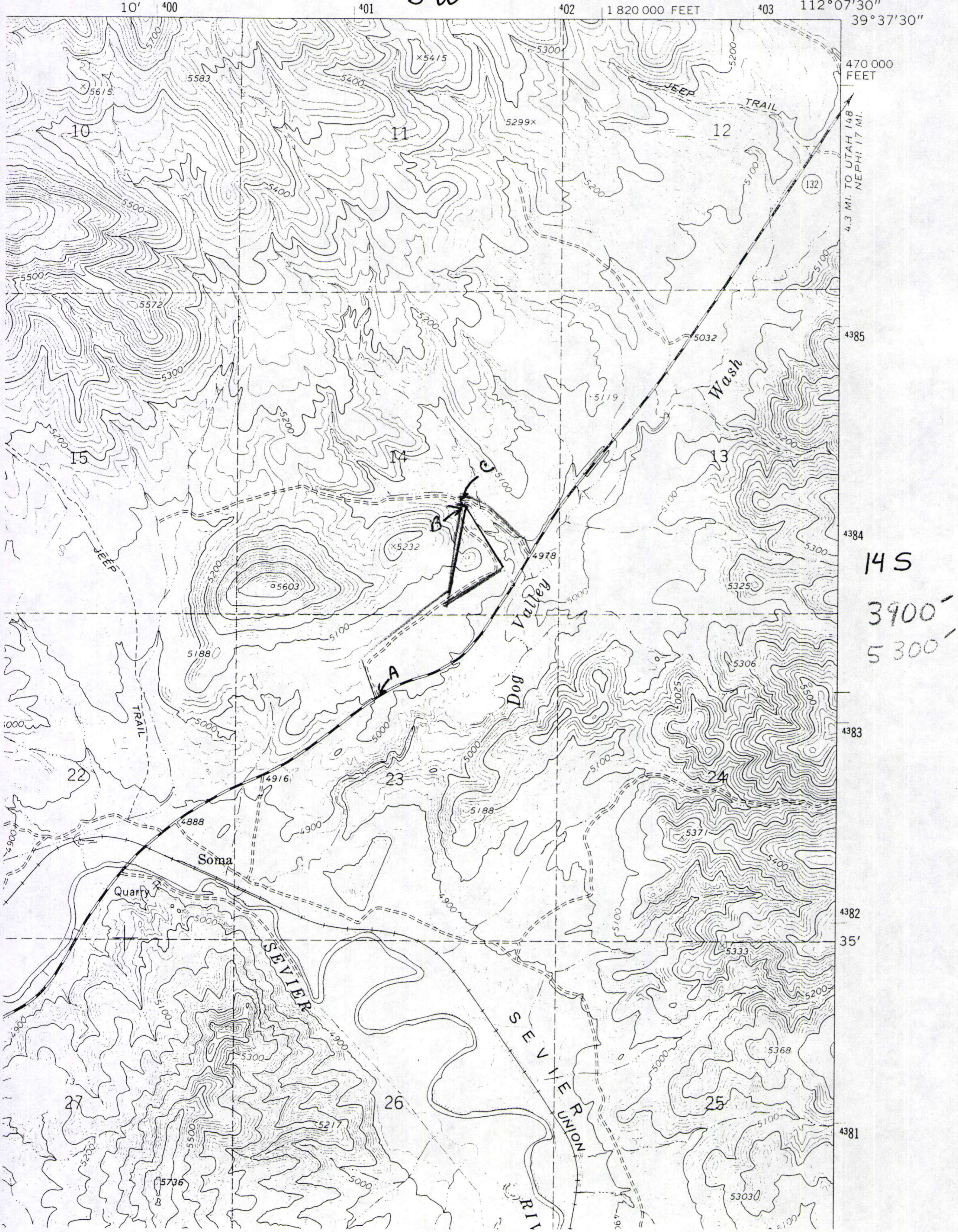
CHAMPLIN PEA QUADRANGLE

U

7.5 MINUTE SERIES (TOPOGRAPHIC)

3W

3563 II NE (FURNER RIDG



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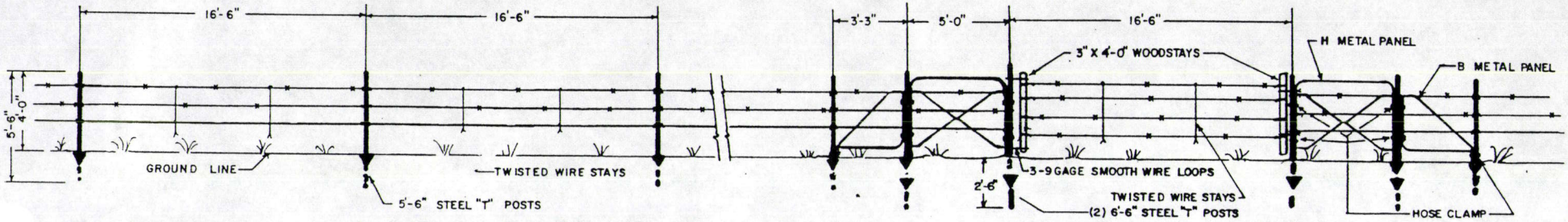
5300′

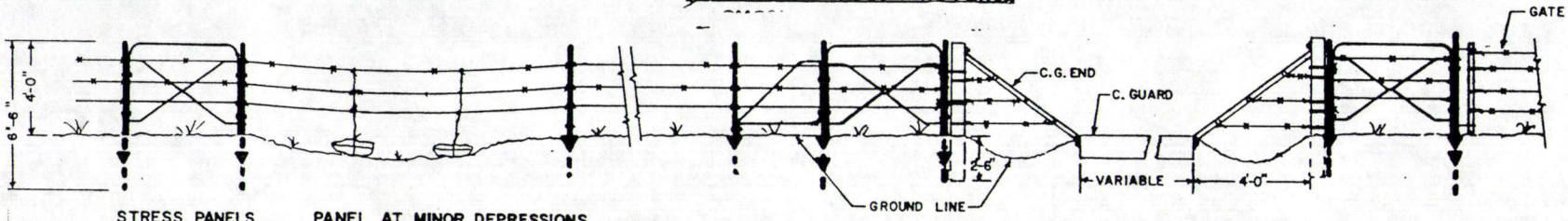


LINE PANELS

PANEL AT GATES

TYPE A - 4 BARBED WIRE FENCE

3 STRAND BARBED WIRE FENCE



STRESS PANELS

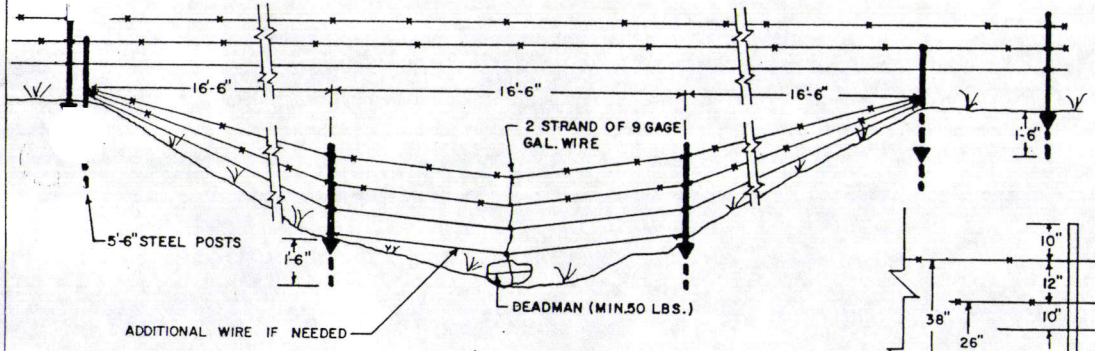
PANEL AT MINOR DEPRESSIONS

NOTE: Posts will be tied down where there is an up-stress on them.

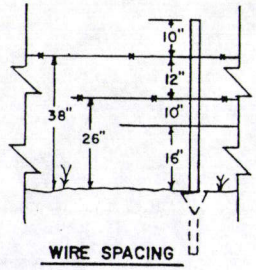
PANEL AT CATTLE GUARD

NOTE: SIZES, DIMENSIONS AND NOTES APPLICABLE TO ALL PANELS AT GATES, CATTLEGUARDS, CORNERS AND STRESS PANELS.

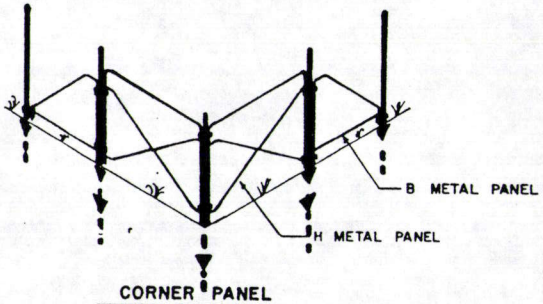
Attachment C



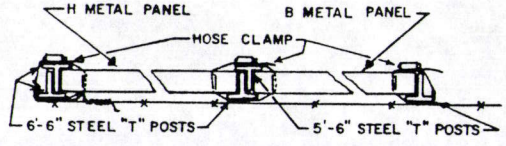
TYPE I-A DRAINAGE CROSSING



WIRE SPACING



CORNER PANEL



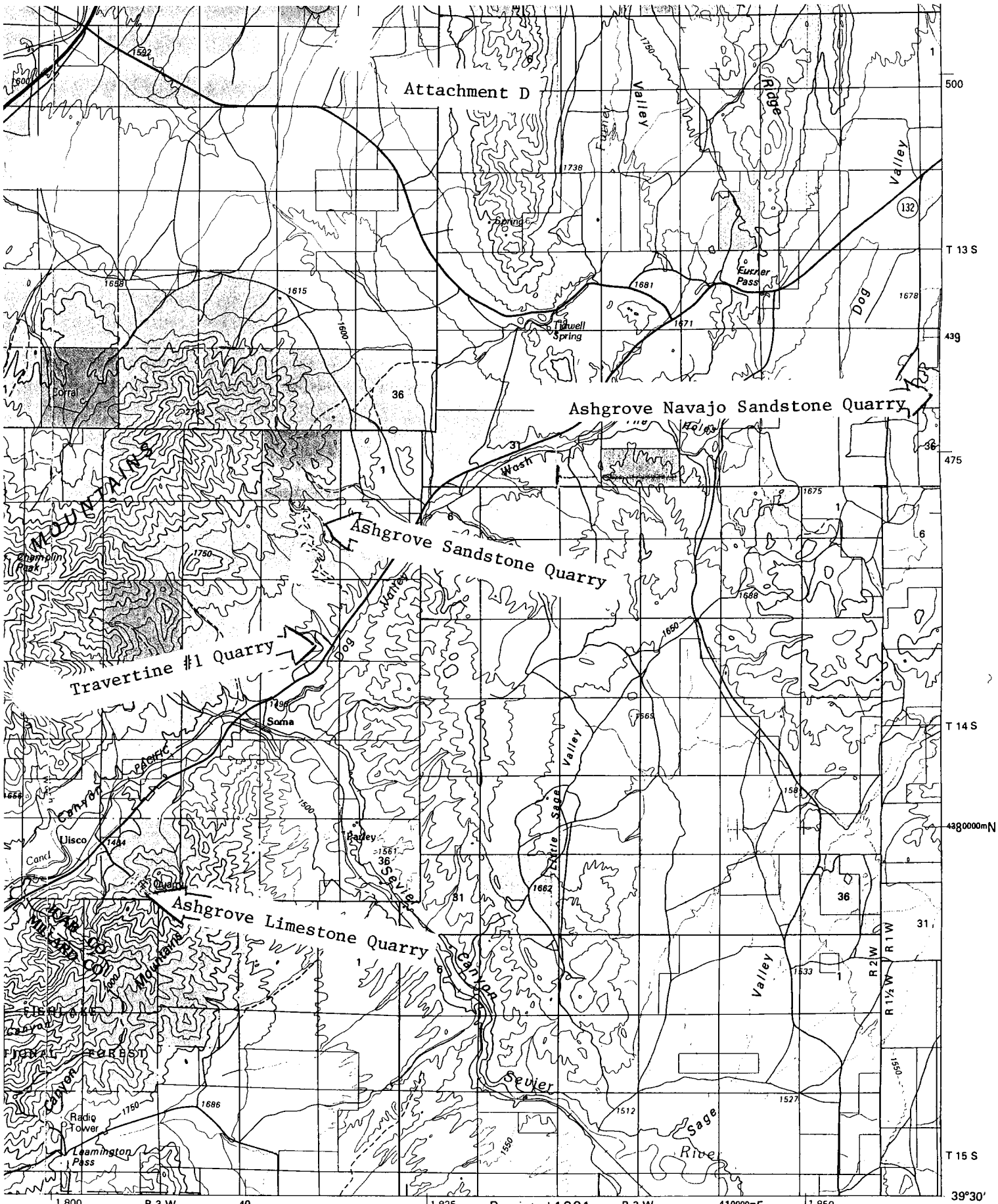
GATE, CORNER & END PANEL DETAIL

U. S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

BARBED WIRE FENCE
TYPE - B

DESIGNED	
REVIEWED	
APPROVED	
DRAWN B.E.S.	SCALE NONE
DATE 2/88	SHEET OF
DRAWING NO.	

☆ U.S. GOVERNMENT PRINTING OFFICE: 1981-780-150



1000 METERS

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LYNNDYL, UTAH
N3930–W11200/30x60

1979

FIELDTRIP9904 017.JPG 2004/09/08 09:42:43